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HEIDEL, WILLIAM  
ARTHUR

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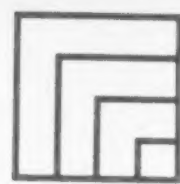
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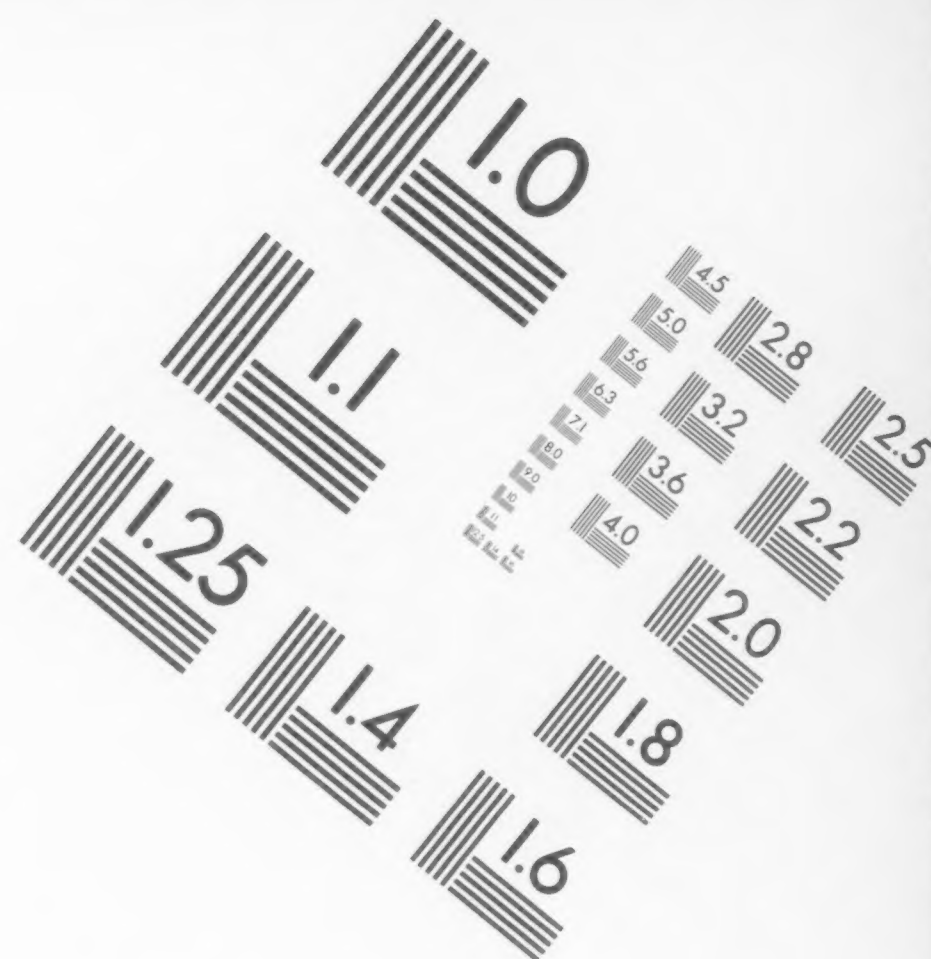
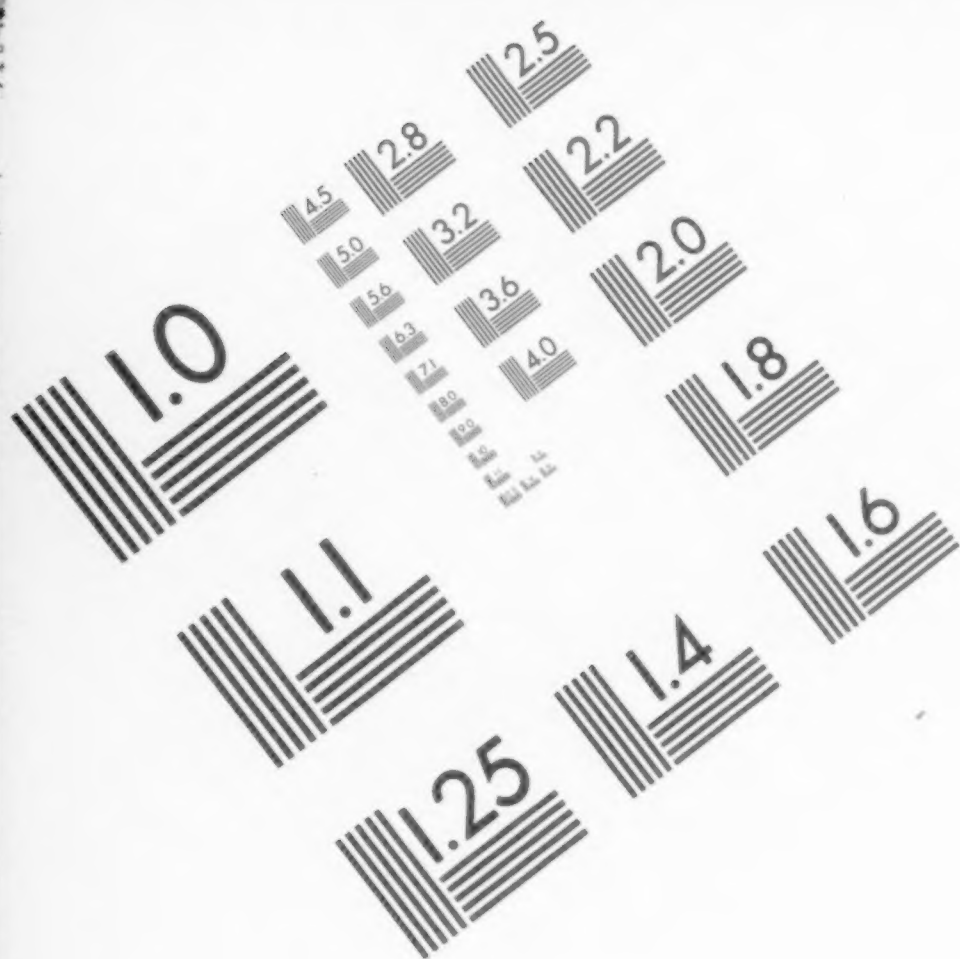


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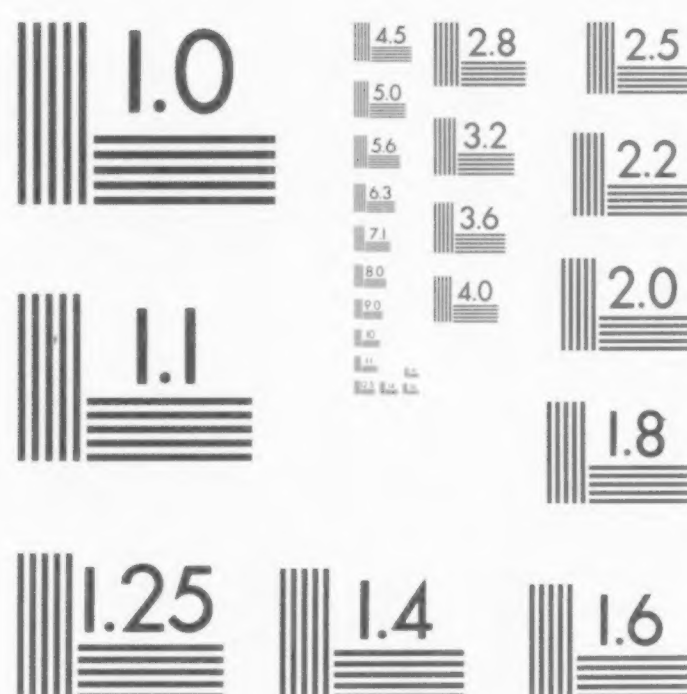
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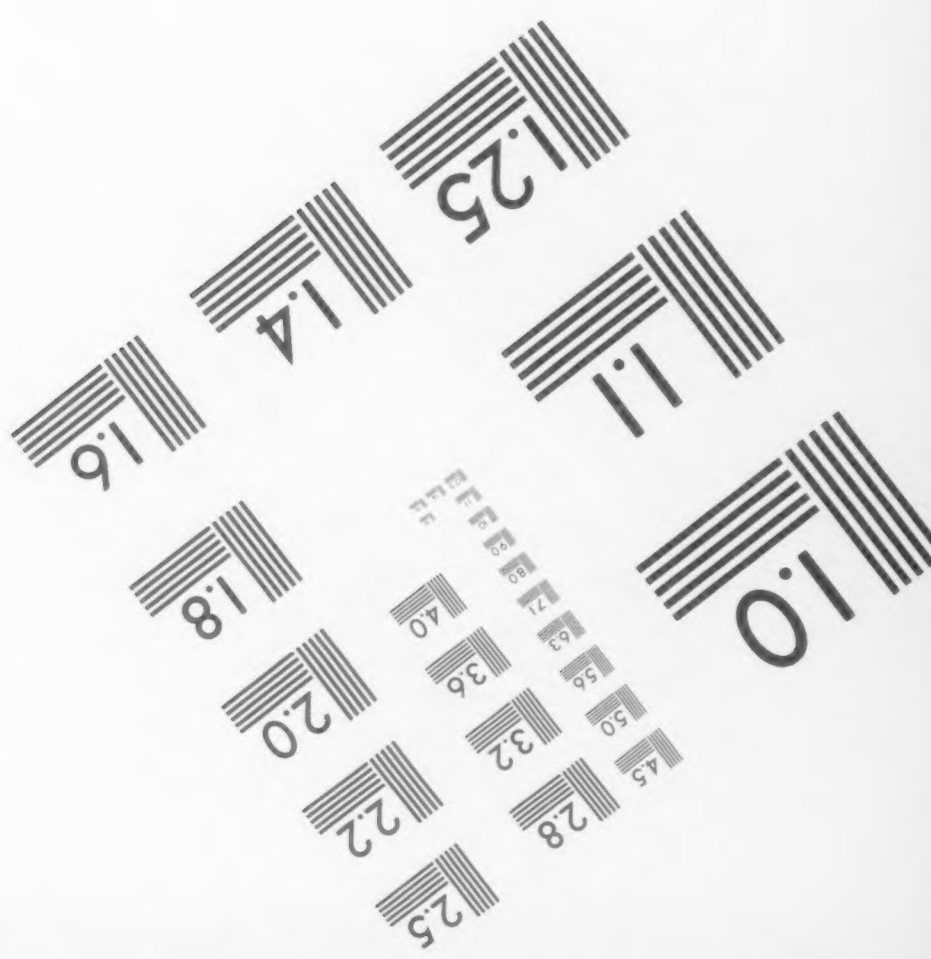
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ON CERTAIN FRAGMENTS OF THE PRE-SOCRATICS:

CRITICAL NOTES AND ELUCIDATIONS.

BY WILLIAM ARTHUR WEIDEL.

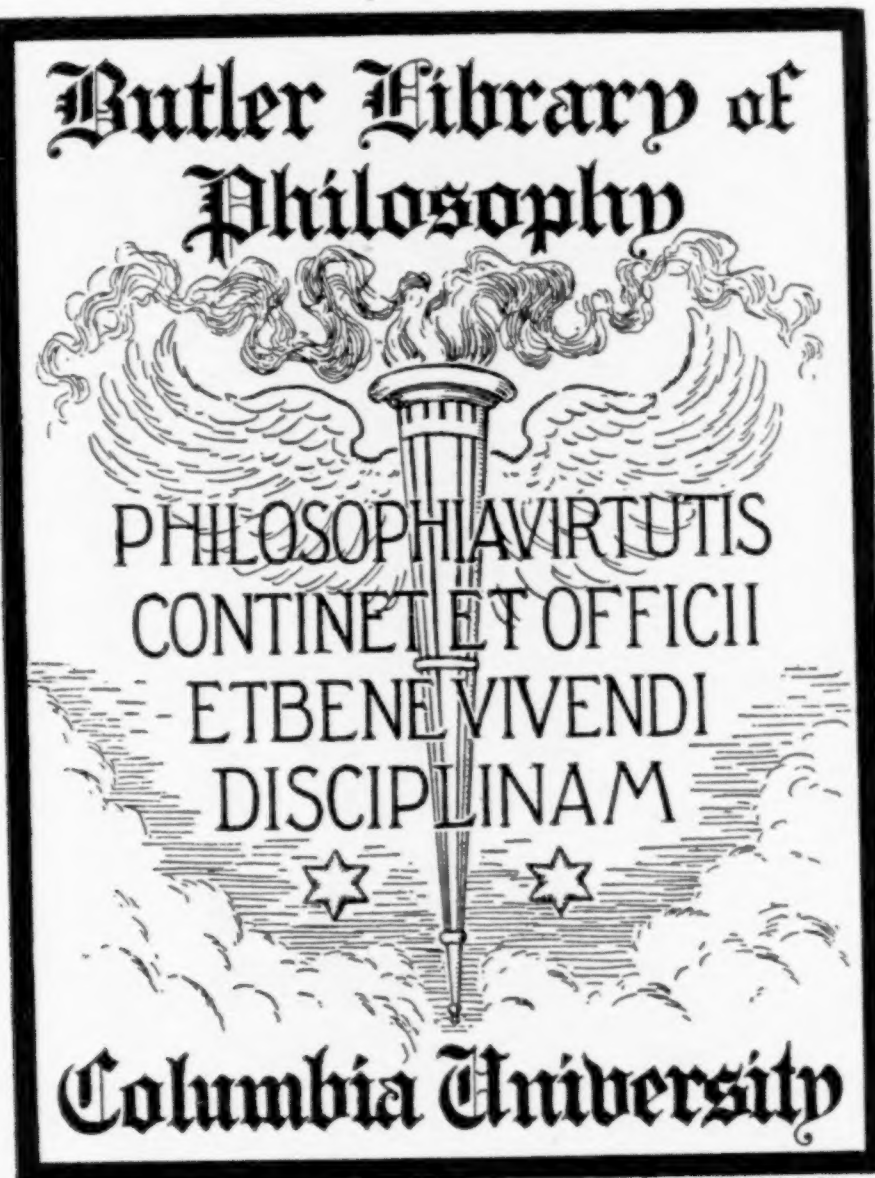
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2 Oct. 16 1913

# ON CERTAIN FRAGMENTS OF THE PRE-SOCRATICS:

## CRITICAL NOTES AND ELUCIDATIONS.

BY WILLIAM ARTHUR HEIDEL.

Presented April 9. Received February 28, 1913.

THE collection of notes here presented owes its origin to a request for suggestions from Professor Hermann Diels when he was engaged in revising *Die Fragmente der Vorsokratiker* for the third edition, since published (1912). In response to his courteous invitation I sent, together with a list of errors noted in the second edition, a number of proposals for the emendation of texts and the interpretation of doubtful passages. Had I then had the requisite leisure it would have been my duty to explain and defend my suggestions; since that was impossible, the notes then submitted were in effect mere marginalia, to notice which as fully as Professor Diels has done required uncommon courtesy. To be permitted to contribute even in a small measure to so excellent an instrument of scholarship is an honor not lightly to be esteemed. The renewal of certain suggestions previously made but not accepted by Professor Diels is due solely to the desire to enable him and other scholars to judge of their merits when the case for them is properly presented; others, in the correctness of which I still have confidence, are here left unnoticed because, as referred to in the third edition, they are already recorded and bear on their face such credentials as are necessary for a proper estimate of their claims. But I here present for the first time a considerable number of proposed readings and interpretations, the importance of which, if approved by the judgment of competent scholars, must be at once apparent to the historian of Greek thought. If it were customary to dedicate such studies, I should dedicate these notes to my honored teacher and friend, Professor Diels, to whom I owe more for instruction and inspiration during a quarter of a century than I can hope to repay. In the following pages reference is made to chapter, page, and line

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of his second edition (V<sup>2</sup>), because the pages of this edition are noted also in the margin of the third (V<sup>3</sup>).

c. 2. **Anaximander.**

V<sup>2</sup> 12, 28. Plin. N. H. 2. 31. Obliquitatem eius [sc. zodiaci] intellexisse, hoc est rerum foris aperuisse, Anaximander Milesius traditur primus.

Perhaps the full significance of the clause 'hoc . . . aperuisse,' whatever the source of the sentiment, is hardly appreciated. The Delphin edition refers to Plin. N. H. 35. 36 'artis foris apertas ab Apollodoro Zeuxis intravit'; but that is not a real parallel. For such we turn rather to Lucret. 1, 66 sq.

Graius homo [sc. Epicurus] . . .  
 . . . . . eo magis acrem  
 irritat animi virtutem, effringere ut arta  
 naturae primus portarum claustra cupiret.  
 ergo vivida vis animi pervicit, et extra  
 processit longe flammantia moenia mundi  
 atque omne immensum peragravit mente animoque,  
 unde refert nobis victor quid possit oriri  
 quid nequeat, finita potestas denique cuique  
 quanam sit ratione atque alte terminus haerens.

The same conception recurs Lucret. 3, 14 sq.

nam simul ac ratio tua coepit vociferari  
 naturam rerum, divina mente coorta,  
 diffugiunt animi terrores, moenia mundi  
 discedunt, totum video per inane geri res.

For these passages I would refer the reader to my essay, *Die Bekehrung im klassischen Altertum, mit besonderer Berücksichtigung des Lucretius*, Zeitschrift für Religionspsychologie, Bd. III, Heft 11, p. 13 sq. Heinze's parallels to Lucret. 3, 14 sq. ought to have made clear to him that there is here an allusion to the ecstatic *ἐποπτεία* of the mysteries evoked, as I pointed out, by the pronouncement of the *ἱερός λόγος* (ratio . . . divina mente coorta), coming as the climax of the rites of initiation, when the mystae catch a vision and seize the significance of the world (*ἐποπτεύειν δὲ καὶ περινοεῖν τὴν τε φύσιν καὶ τὰ πράγματα*), according to Clem. Alex. Strom. 5. 11. Müller on Lucil. 30, 1 compared Lucret. 1, 66 sq., and the editors of Lucretius have

copied the reference, although the resemblance is altogether superficial and without significance. Recently Professor Reid, *Lucretiana*, Harvard Studies in Class. Philology, Vol. 22, p. 2, has once more drawn attention to Sen. Dial. 8. 5. 6, Cogitatio nostra caeli munimenta per-rumpit nec contenta est id, quod ostenditur, scire: illud, inquit, scrutator, quod ultra mundum iacet, utrumne profunda vastitas sit an et hoc ipsum terminis suis cludatur, etc. I doubt, however, the correctness of his statement that Seneca was here imitating Lucretius. It seems to me more probable that both authors are reproducing with some freedom the thought of an earlier, perhaps Stoic, writer, who may have been Posidonius. Be that as it may, the thought common to Lucretius, Seneca, and Pliny (and I may add, Bishop Dionysius, ap. Euseb. P. E. 14. 27. 8) is that a great revelation has come, rending as it were the curtain or outer confines of the world and permitting a glimpse into the utmost secrets of nature. Such a revelation, according to Pliny, ensued upon the discovery of the obliquity of the ecliptic; and a study of early Greek cosmology clearly demonstrates the capital importance attached to it. To some aspects of this question I drew attention in my article, *Ἡ Δίωξις ἐν Ἀναξίμανδρῳ καὶ Ἀναξίμανδρῳ*, Class. Philol., Vol. 1, p. 279 sq. Very much more remains to be said, but I shall have to reserve the matter for a future occasion.

V<sup>2</sup> 13, 2. 'Αναξίμανδρος . . . ἀρχὴν τε καὶ στοιχείων εἶρηκε τῶν ὄντων τὸ ἀπειρον.

For the meaning of ἀρχή Diels refers in V<sup>3</sup> to the preliminary statement in my *Περὶ Φύσεως*, Proceed. of Amer. Acad. of Arts and Sc., Vol. 45, p. 79, n. 3. The subject has now received a fuller treatment in my essay *On Anaximander*, Class. Philol., Vol. 8 (1912), p. 212 sq. To the statement there given, though much might be said by way of enlargement and confirmation, I think it unnecessary to add anything, except to say that the results of my investigations dovetail admirably into certain other observations recently made by different scholars. I refer among others to the views of Otto Gilbert as to the original meaning of the 'elements' set forth in his *Griech. Religionsphilosophie*, 1911, which reached me at the same time with the off-prints of my essay; and to Mr. Cornford's conception of *Μοῖρα* as developed in *From Religion to Philosophy*, 1912. Unfortunately both these authors accept the Peripatetic tradition regarding the meaning of Anaximander's ἀρχή; consequently their observations remain fruitless when they proceed to interpret the early history of Greek philosophy.



V<sup>2</sup> 13, 7. διδόναι γὰρ αὐτὰ δίκην καὶ τίσιν ἀλλήλοισι τῆς ἀδικίας κατὰ τὴν τοῦ χρόνου τάξιν.

In his note on this passage (V<sup>3</sup> 15, 28) Diels repeats his former explanation, "ἀλλήλοισι: *dativus commodi*: das Untergehende dem Überlebenden und dieses wieder untergehend dem künftig Entstehenden. Vgl. Eur. Chrysipp. fr. 839, 13." This interpretation, which is that now currently accepted, rests obviously on the assumption that the preceding sentence in Simplicius, ἐξ ὧν δὲ ἡ γένεσις ἐστὶ τοῖς οὖσι, καὶ τὴν φθορὰν εἰς ταῦτα γίνεσθαι κατὰ τὸ χρεών, preserves the authentic words of Anaximander and that, in consequence, it is individual things or objects (τὰ ὄντα) that mutually exact and pay the penalty for injustice done to one another. On that view Diels's elaboration of the implications of ἀλλήλοισι is both obvious and necessary. I believe, however, that in my essay *On Anaximander*, p. 233 sq., I showed conclusively (1) that it is not individual objects but the contraries, hot and cold, that encroach on one another and suffer periodic punishment inflicted by each on the other (wherefore ἀλλήλοισι is here to be interpreted as a strict reciprocal and not as Diels proposes), and (2) that when this mutual κόλασις is said to recur κατὰ τὴν τοῦ χρόνου τάξιν, reference is had to the seasonal excess of the hot in summer and of the cold in winter. The strict limitations of space imposed upon my essay led to the exclusion of many things which I reluctantly omitted, and did not admit of a full statement of my views. I propose, therefore, here to add a few points which may serve to explain and confirm them. Zeller insists that for Anaximander one pair of contraries only, the hot and the cold, existed, at least as primarily proceeding from the ἀπειρον; this would rule out the moist and the dry, which are mentioned with the first pair by Simplicius, as due to Aristotle. This may be true, but it is not necessarily so; for the Empedoclean and Hippocratic group of four contraries is too well attested, and if, as seems certain, Anaximander had in mind the seasonal changes it is hard to conceive of him as overlooking the differences in drought and moisture which Simplicius mentions with those of heat and cold. A passage strikingly illustrating and interpreting that of Simplicius is found in Philo, *De Anim. Sacrif. Idon.* II. 242 Mang. ἡ δὲ εἰς μέλη τοῦ ζώου διανομὴ δηλοῖ, ἥτοι ὡς ἐν τὰ πάντα ἢ ὅτι ἐξ ἐνός τε καὶ εἰς ἐν· ὅπερ οἱ μὲν κόρον καὶ χρησιμοσύνην ἐκάλεσαν, οἱ δ' ἐκπύρωσιν καὶ διακόσμησιν· ἐκπύρωσιν μὲν κατὰ τὴν τοῦ θεοῦ δυναστείαν τῶν ἄλλων ἐπικρατήσαντος, διακόσμησιν δὲ κατὰ τὴν τῶν τετραγώνων στοιχείων ἰσονομίαν, ἣν ἀντιδιδόασιν ἀλλήλοισι. Philo

is of course far from thinking of Anaximander and has in mind Heraclitus and the Stoics only; but we know that the conception of Heraclitus was older than the fifth century, being traceable to Alcmaeon, a contemporary of Anaximander. The ἰσονομία τῶν δυνάμεων (Alcmaeon, fr. 4), as the condition of health, and the ἐπικράτεια and πλεονεξία of the several constituents of the human body as the cause of disease, are fixed factors of practically the whole medical tradition of Greece. We may therefore confidently affirm that the ἰσονομία <τῶν στοιχείων or rather τῶν ἐναντιοτήτων> ἣν ἀντιδιδόασιν ἀλλήλοισι, which Philo attributes to Heraclitus and the Stoics, applies with equal propriety to Anaximander, and explains his meaning. These different factors, correlated also with the seasonal changes, are mentioned by Plato, *Legg.* 906 C, φαμέν δ' εἶναι πῶς τὸ νῦν ὀνομαζόμενον ἀμάρτημα, τὴν πλεονεξίαν, ἐν μὲν σαρκίνους σώμασιν νόσημα καλούμενον, ἐν δὲ ὥραις ἐτῶν καὶ ἐνιαυτοῖς λοιμόν, ἐν δὲ πόλεσιν καὶ πολιτείαις τοῦτο αὐτό, ῥήματι μετεσχηματισμένον, ἀδικίαν. The connection, here hardly more than suggested, is clearly noted by Plato, *Symp.* 188 A, ἐπεὶ καὶ ἡ τῶν ὥρων τοῦ ἐνιαυτοῦ σύστασις μεστή ἐστὶν ἀμφοτέρων τούτων, καὶ ἐπειδὴν μὲν πρὸς ἄλληλα τοῦ κοσμοῦ τύχη ἔρωτος ἃ νυνδὴ ἐγὼ ἔλεγον, τὰ τε θερμὰ καὶ τὰ ψυχρὰ καὶ ξηρὰ καὶ ὑγρὰ, καὶ ἀρμονίαν καὶ κρᾶσιν λάβῃ σῶφρονα, ἥκει φέροντα εὐετηρίαν τε καὶ ὑγίειαν ἀνθρώποις καὶ τοῖς ἄλλοις ζώοις τε καὶ φυτοῖς, καὶ οὐδὲν ἠδίκησεν· ὅταν δὲ ὁ μετὰ τῆς ὑβρεως Ἔρως ἐγκρατέστερος περὶ τὰς τοῦ ἐνιαυτοῦ ὥρας γένηται, διέφθειρὲν τε πολλὰ καὶ ἠδίκησεν. On this passage cp. Hirzel, *Themis, Dike und Verwandtes*, p. 220 sq. The medical doctrine expounded by Eryximachus in the *Symposium*, although perhaps slightly colored with Heraclitean thought, is that of the Hippocratic treatises, notably of *Περὶ φύσιος ἀνθρώπου*, from which we may quote one passage, c 7 (6.48 L.), κατὰ φύσιν γὰρ αὐτέφ ταῦτα ἐστὶ μάλιστα τοῦ ἐνιαυτοῦ . . . ἔχει μὲν οὖν ταῦτα πάντα αἰεὶ τὸ σῶμα τοῦ ἀνθρώπου, ὑπὸ δὲ τῆς περισταμένης ὥρης ποτὲ μὲν πλείω γίνεται αὐτὰ ἐωυτῶν, ποτὲ δὲ ἐλάσσω, ἕκαστα κατὰ μέρος [= ἐν μέρει] καὶ κατὰ φύσιν [sc. τοῦ ἐνιαυτοῦ] . . . ἰσχύει δὲ ἐν τῷ ἐνιαυτῷ ποτὲ μὲν ὁ χειμὼν μάλιστα, ποτὲ δὲ τὸ ἦρ, ποτὲ δὲ τὸ θέρος, ποτὲ δὲ τὸ φθινόπωρον· οὕτω δὲ καὶ ἐν τῷ ἀνθρώπῳ ποτὲ μὲν τὸ φλέγμα ἰσχύει, ποτὲ δὲ τὸ αἷμα, ποτὲ δὲ ἡ χολή, πρῶτον μὲν ἡ ξανθή, ἔπειτα δ' ἡ μέλαινα καλεομένη. Not to repeat what I have elsewhere said in regard to the doctrines of Heraclitus and Empedocles, I refer the reader to my essay *Qualitative Change in Pre-Socratic Philosophy*, *Archiv für Gesch. der Philos.*, Vol. 19, pp. 360 sq. and 365. Since the ἀδικία and the δίκη καὶ τίσις of Anaximander refer not to the origin and destruction of individual objects but to the successive encroachment of the elemental opposites



one on another in the seasonal changes of the year, it follows that the words of Anaximander cannot be used to support the interpretation of his *ἄπειρον-ἀρχή* as a metaphysical world-ground in which the sin of individual existence is punished by the reabsorption of the concrete objects of experience. For this see *On Anaximander*, p. 225, n. 3, and my review of James Adam, *The Vitality of Platonism and Other Essays*, Amer. Journ. of Philol., Vol. 33 (1912), p. 93 sq.

V<sup>2</sup> 13, 34. [Plut.] Strom. 2, φησὶ δὲ τὸ ἐκ τοῦ αἰδίου γόνιμον θερμοῦ τε καὶ ψυχροῦ κατὰ τὴν γένεσιν τοῦδε τοῦ κόσμου ἀποκριθῆναι καὶ τινα ἐκ τούτου φλογὸς σφαῖραν περιφυῆναι τῷ περὶ τὴν γῆν ἄερι ὡς τῷ δένδρῳ φλοιόν. ἥστινος ἀπορραγείσης καὶ εἰς τινὰς ἀποκλεισθείσης κύκλους ὑποστήναι τὸν ἥλιον καὶ τὴν σελήνην καὶ τοὺς ἀστέρας.

The words τὸ . . . ψυχροῦ have been much discussed and variously interpreted. Zeller, I<sup>a</sup> 220, n. 1, pronounces the text corrupt and suggests φησὶ δ' ἐκ τοῦ αἰδίου τὸ γόνιμον θερμόν τε καὶ ψυχρόν, rejecting Neuhäuser's obviously correct proposal to take the genitives θερμοῦ and ψυχροῦ as depending on γόνιμον. Burnet, *Early Greek Philosophy*<sup>2</sup>, p. 66, retaining the traditional text, renders, "Something capable of begetting hot and cold was separated off from the eternal." If we were dealing with a poet we might take such liberties, but we may safely dismiss the interpretation as impossible for prose. Diels gives no definite indication of his understanding of the words, but claims γόνιμον as possibly belonging to Anaximander, certainly to Theophrastus, referring in support of his contention to Porphyry. De Abstin. 2. 5. The text of Porphyry, however, throws no light on ours, and there is good reason to doubt whether we may attribute the word to Theophrastus. In all probability we are dealing with a Stoic source, however related to Theophrastus; for γόνιμον seems to be a congener to the λόγος σπερματικός of the Stoics. Cp. Marc. Aurel. 9. 1. 4, λέγω δὲ τὸ χρῆσθαι τούτοις ἐπίσης τὴν κοινὴν φύσιν ἀντὶ τοῦ συμβαίνειν ἐπίσης κατὰ τὸ ἐξῆς τοῖς γινομένοις καὶ ἐπιγινομένοις ὁρμῇ τινι ἀρχαίᾳ τῆς προνοίας, καθ' ἣν ἀπὸ τινος ἀρχῆς ὥρμησεν ἐπὶ τήνδε τὴν διακόσμησιν, συλλαβοῦσά τινὰς λόγους τῶν ἐσομένων καὶ δυνάμεις γονίμους ἀφορίσασα ὑποστάσεών τε καὶ μεταβολῶν καὶ διαδοχῶν τοιούτων. It seems fairly certain that τὸ . . . γόνιμον θερμοῦ τε καὶ ψυχροῦ is the Stoic ἄποιος ὕλη which contains δυνάμει the hot and the cold of the cosmos. We thus find masked in Stoic phraseology the φύσις ἀόριστος of Theophrastus. This γόνιμον θερμοῦ τε καὶ ψυχροῦ is, at least in extent, not identical with the *ἄπειρον* itself, but was "separated off" from it at the origin of our cosmos. It must, therefore, be that por-

tion of the *ἄπειρον-ἀρχή* which gave rise to the present world. Tan-nery, Zeller, Burnet, and others regard ἐκ τοῦ αἰδίου as referring to the *ἄπειρον*, thinking perhaps of certain passages referring to Xenophanes, Melissus, and Anaxagoras; but Zeller at least perceived that this was not to be accepted without considerable violence to the text. I maintain the correctness of my suggestion, *On Anaximander*, p. 229, n. 2, that we are to supply ἀπὸ τοῦ αἰείρου with ἀποκριθῆναι, whether it ever stood in the text or not, and that the phrase ἐκ τοῦ αἰδίου, which stands just where it belongs, means "from eternity." We are familiar with ἐς αἶδιον, "forever," and Marc. Aurel. 2. 14; 4. 21; 10. 5 thrice uses ἐξ αἰδίου in that sense, and numerous other instances might be cited. It happens that I cannot point to another instance of ἐκ τοῦ αἰδίου, but the analogy of parallel expressions occurring with and without the article would render it not at all surprising if such should be found in late authors. The expression under consideration may be taken with confidence to mean "*The eternal substratum capable by dynamic evolution of producing hot and cold.*"

The remainder of this interesting passage also deserves renewed consideration. It speaks of a 'sphere of flame,' and this appears to be generally accepted as establishing the sphericity of Anaximander's cosmos. Diels has not, to my knowledge, expressed himself in unmistakable terms; but his description of the φλογὸς σφαῖρα as a "Waberlohe" would be best taken as applicable to a circle. A conclusion so opposed to the apparent meaning of the word σφαῖρα will surprise no one who is familiar with the general ambiguity of words in Greek meaning 'round' and the uncritical habit among later authors of attributing Eudoxian notions to earlier cosmologists and astronomers, provided that the remainder of the statement points to a circle rather than a sphere. I have no intention of discussing here the whole subject, which would require a connected examination of all the data of early Greek cosmology, but propose to confine my attention to this one passage. It is pertinent, however, to remark that on other grounds I have elsewhere found reasons for doubting the correctness of the Aristotelian account, which places the earth in Anaximander's scheme at the center of a sphere; for if Aristotle's authority is accepted as final, the interpretation here offered will be ruled out of court without a hearing. See my essay, *The Δίνη in Anaximenes and Anaximander*, Class. Philol., Vol. 1, p. 279 sq., especially p. 281.

Let us then address ourselves to the text: καὶ τινα ἐκ τούτου φλογὸς σφαῖραν περιφυῆναι τῷ περὶ τὴν γῆν ἄερι ὡς τῷ δένδρῳ φλοιόν. ἥστινος ἀπορραγείσης καὶ εἰς τινὰς ἀποκλεισθείσης κύκλους ὑποστήναι τὸν ἥλιον καὶ



τὴν σελήνην καὶ τοὺς ἀστέρας. The orthodox view appears to be that a sphere of flame is somehow exploded and (rather curiously!) reduced to a succession of circles of flame confined within an envelope of mist; these circles being those which constitute sun, moon, and stars. We have come to expect definite analogies and clear 'Anschauung' among the early Greek philosophers; and the severe strain which the current view puts on the imagination would of itself cast suspicion on it. We might nevertheless feel compelled, however reluctantly, to accept it, if the details of the account itself pointed to it or were even consistent with it. It will probably be conceded that — the term σφαῖρα apart — it is vastly simpler to conceive of a wide annular mass breaking up into annular parts than to imagine the same result ensuing from the destruction of a sphere. But as a matter of fact our text says nothing that may fairly be interpreted as implying the breaking or exploding of the sphere. The crucial words are περιφυῆναι and ἀπορραγείσης. Perhaps the real force of neither word has been appreciated. Here περιφυῆναι means that the "sphere" at first "snugly fitted" or was "closely attached to" the "air" which encircles the earth; whereas ἀπορραγείσης states merely that subsequently it became detached, as even a superficial attention to the normal meaning of the terms will convince the reader. The contrast may be illustrated by Arist. Hist. Animal. 5. 19. 552<sup>a</sup> 3, ταῦτα δὲ χρόνον μὲν τινα κινεῖται προσπεφυκότα, ἔπειτ' ἀπορραγέοντα φέρεται κατὰ τὸ ὕδωρ, αἱ καλούμεναι ἀσκαρίδες. Besides, ἀπορρηγνύναι is not the proper word to use of the tearing of such an envelope as a sphere of flame; Greek writers so use ῥηγνύναι, διαρρηγνύναι, and περιρρηγνύναι, especially the last-mentioned, as might be shown by a long list of examples derived from Aristotle and other authors. The same general conception is implied in the simile ὡς τῷ δένδρῳ φλοιόν. We may not press similes beyond the immediate point of comparison, which in this instance is the snugness of the fit; but if one is to press it, it is obvious that the bark of a tree is annular rather than spherical. It will hardly serve the interest of the objector to refer to Anaximander's notion of the prickly integument of the first animals, V<sup>2</sup> 17, 18, ἐν ὑγρῷ γεννηθῆναι τὰ πρῶτα ζῷα φλοιοῖς περιεχόμενα ἀκανθώδεσι... περιρρηγνυμένου τοῦ φλοιοῦ; for there, as περιρρηγνυμένου sufficiently shows, the conception is altogether different. It is quite possible, as later Greek thinkers prove, to conceive of the cosmos and the human embryo as equally inclosed in a ὑμῆν without pressing the comparison beyond reason. I have noted with some interest another passage in which the meaning of ἀπορρηγνύναι has been similarly misconceived.

Arist. Hist. Animal. 5.18. 549<sup>b</sup> 31 sq. the spawning of the octopus and the development of its young are described. There we read 550<sup>a</sup> 3, τὰ μὲν οὖν τῶν πολυπόδων μεθ' ἡμέρας μάλιστα πεντήκοντα γίνεται ἐκ τῶν ἀπορραγόντων πολυπόδια, καὶ ἐξέρπει, ὥσπερ τὰ φαλάγγια, πολλὰ τὸ πλῆθος. Professor Thompson in his recent translation renders it thus: "Some fifty days later, the eggs burst and the little polypuses creep out" [italics mine]. In fact there is no reference to the bursting of the eggs. Aristotle's meaning is that that which develops into the individual polyp becomes detached from the vine-like mass which he has previously described, and that the young crawl forth (not from the eggs, but) from the hole or vessel in which the spawn was deposited.

To return to the cosmology of Anaximander: the words καὶ εἰς τινὰς ἀποκλεισθείσης κύκλους refer not specifically to σφαῖρα but to φλόξ. The Waberlohe by some means, doubtless identical with that which detached the envelope of flame from the envelope of "air" was segregated into a number of annular masses, each like the earth inclosed in an envelope of "air." This segregation is not specifically mentioned but must be inferred; and we can guess only at the immediate cause of it. Now it is fairly certain that Anaximander knew the obliquity of the ecliptic or, as the early Greeks seem regularly to have called it, the inclination or dip of the zodiac or ecliptic. Pliny, as we have seen, attached great significance to its discovery, and so far as we know all the early Greek philosophers regarded it as an actual dipping resulting from some cause subsequently to the origin of the cosmos. Such an event would amply explain the initial break between the respective envelopes of "air" and flame; what caused the subsequent disintegration of the circle of flame into separate rings we do not know and perhaps it were idle further to speculate.

V<sup>2</sup> 17, 18. Aet. 5. 19. 4, 'Αναξίμανδρος ἐν ὑγρῷ γεννηθῆναι τὰ πρῶτα ζῷα φλοιοῖς περιεχόμενα ἀκανθώδεσι, προβαίνουσιν δὲ τῆς ἡλικίας ἀποβαίνειν ἐπὶ τὸ ξηρότερον καὶ περιρρηγνυμένου τοῦ φλοιοῦ ἐπ' ὀλίγον μεταβιῶναι.

In V<sup>1</sup> and <sup>2</sup> the word χρόνον was omitted by mistake after ἐπ' ὀλίγον; his attention having been called to the omission by me, Diels has restored it in V<sup>3</sup>. Ordinarily a fact of this sort would hardly deserve to be noted; but since the false reading has found its way into Kranz's *Wortindex*, s. v. μεταβιῶν, and has been quoted without question by various writers, as e. g. by Otto Gilbert, *Die meteorol. Theorien des gr. Altertums*, p. 332, n. 1, and Kinkel, *Gesch. der Philos.*, I. p. 7\*, it calls for more than a tacit correction. This is the more necessary because



the text has been very generally misunderstood and false conclusions have been drawn from it. It is perhaps unnecessary to recount in detail this chapter of curious errors. I have no means of knowing what interpretation Diels now puts on the text; but in the absence of any indication in his notes it seems reasonable to assume that he still adheres to the view briefly set forth in the index to his *Doxographi Graeci*, s. v. μεταβιοῦν: "mutare vitam [cf. μεταδιαίταν]." This may be said to have been the common view of recent interpreters, until Burnet, *Early Greek Philosophy*<sup>2</sup>, p. 72 sq., correcting the version of his first edition, returned to the correct rendering of Brucker, "ruptoque cortice non multum temporis supervixisse," which Teichmüller with characteristic ignorance of Greek sharply condemned, *Studien zur Gesch. der Begriffe*, p. 64, n. Tannery, *Pour l'histoire de la science hellène*, pp. 87 and 117, gives in effect two renderings, each incorrect. The important point to note is that ἡλικία can refer to nothing but the age of the individual; and that ἐπ' ὀλίγον χρόνον can have but one meaning, to wit, "for a short time only." The force of μεταβιώναι must, therefore, be determined with reference to these known quantities of the problem. This once granted, the decision between the rival claims of vitam mutasse and supervixisse is easy and certain. To be sure, μετά in composition far more frequently implies change than it denotes 'after'; but μεταδιδέσκειν is as well attested as μεταδιαίταν. However if, as seemed plausible from Diels's earlier editions, it were possible to conceive that the correct text was ἐπ' ὀλίγον μεταβιώναι, one might have inclined to take ἐπ' ὀλίγον in the sense of "to a small extent," as in Arist. Meteor. 350<sup>b</sup> 28 and Marcellinus, Vita Thucyd. 36, and to interpret μεταβιώναι as referring to a change in the mode of life. Another possibility, which I have considered, would be to take ἐπ' ὀλίγον and μεταβιώναι in the sense just indicated and to read χρόνω for χρόνον, thus obtaining the sense "they changed their mode of life to a small extent in course of time." This suggestion was very tempting to one who was prepared to find an anticipation of Darwinism in Anaximander; but against all these proposals ἡλικία stands with its inexorable veto. The sort of change contemplated would require more than one life-time, and ἡλικία limits the action of μεταβιώναι to the life-period of the individual. We must therefore content ourselves with the rendering "As they advanced toward maturity the first animals proceeded from the wet on to the drier ground and as their integument burst (and was sloughed off) they survived but a little while." Perhaps this interpretation may be further supported by a comparison of the view thus obtained with

that of the origin of animal life attributed to Archelaus, V<sup>2</sup> 324, 18, περὶ δὲ ζώων φησὶν, ὅτι θερμαινομένης τῆς γῆς τὸ πρῶτον ἐν τῷ κάτω μέρει, ὅπου τὸ θερμὸν καὶ τὸ ψυχρὸν ἐμίσγετο, ἀνεφαίνετο τὰ τε ἄλλα ζῶα πολλὰ καὶ οἱ ἄνθρωποι, ἅπαντα τὴν αὐτὴν διαίταν ἔχοντα ἐκ τῆς ἰλῦος τρεφόμενα (ἦν δὲ ὀλιγοχρόνια). ὕστερον δὲ αὐτοῖς ἡ ἐξ ἀλλήλων γένεσις συνέστη.

### c. 3. Anaximenes.

V<sup>2</sup> 17, 37. οὗτος ἀρχὴν ἀέρα εἶπεν καὶ τὸ ἄπειρον.

In his note in V<sup>3</sup> Diels says: "Missverständnis oder Verderbnis statt καὶ τοῦτον ἄπειρον." This suggestion is plausible, but far from certain. As I showed in my study of ἀρχή, *On Anaximander*, various vestiges of an earlier cosmological, non-metaphysical, sense of that word survive in Aristotle; it can hardly be thought impossible that the same should be true of Theophrastus, from whom this statement of Diogenes ultimately derives. Indeed, as we shall see when we discuss Diogenes's account of the cosmology of Leucippus (cp. p. 732, on V<sup>2</sup> 343, 1), there is at least one such vestige, though almost obliterated by the unintelligence of excerptors or copyists. But, leaving that for the present aside, we are credibly informed that Anaximenes regarded the outer "air" as boundless, upon which fact Diels relies for his proposed correction; and we know that Anaximenes held the doctrine of the cosmic respiration, in accordance with which the cosmos subsists, as it arises, by receiving its substance from the encircling ἄπειρον in the form of πνεῦμα or breath. This πνεῦμα comes from and returns to the ἄπειρον, which is therefore nothing else but an ἀρχή καὶ πηγὴ, or reservoir, of πνεῦμα. We thus have a complete parallel, so far as concerns the πνεῦμα-ἀήρ, to the doctrine of the early Pythagoreans reported by Aristotle. Cp. my *Antecedents of Greek Corpusecular Theories*, p. 139 sq. In V<sup>3</sup> I. 354, 16 sq. Diels has corrected the text of Aristotle along the lines I suggested. I cannot, however, approve of the bracketing of χρόνου, ib. 22, as proposed by Diels.

V<sup>2</sup> 18, 30 sq. Hippolytus, Ref. 1.7.

The corrupt state of the text of Hippolytus's *Philosophumena*, especially in the first book, is well known. With the aid of Cedrenus Diels has been able to set many passages right; yet much remains to be done. In 1. 7, the chapter devoted to Anaximenes, several additions or interpolations which ought to be removed or bracketed



still encumber the text, though we cannot determine to whom they are due. Diels formerly bracketed πυκνότατον (V<sup>2</sup> 18, 39), but now contents himself with characterizing it as an inaccuracy of the late compiler. There are, however, two larger additions which are false and misleading. V<sup>2</sup> 18, 31, ἀέρα ἄπειρον ἔφη τὴν ἀρχὴν εἶναι, ἐξ οὗ τὰ γινόμενα καὶ τὰ γεγονότα καὶ τὰ ἐσόμενα καὶ θεοὺς καὶ θεῖα γίνεσθαι, τὰ δὲ λοιπὰ ἐκ τῶν τούτου [so Diels, following C: τούτων T] ἀπογόνων. It is obvious that in the statement of Theophrastus the ἀπόγονοι were those of the first generation, and not the absurd list we here have presented to us. The primary forms of existence are afterwards mentioned, V<sup>2</sup> 18, 35-40: the report of Theophrastus is even better preserved by Cic. Acad. 2. 37. 118 (V<sup>2</sup> 19, 16), "Anaximenes infinitum aëra, sed ea, quae ex eo orerentur, definita: gigni autem terram, aquam, ignem, tum ex iis omnia. The variant readings above noted are probably due to the intrusion of the impertinent clause, which clearly does not derive from Theophrastus. Whether Hippolytus or some other made the addition I find it difficult to decide. A second instance of the same kind occurs V<sup>2</sup> 18, 35, κινεῖσθαι δὲ αἰὲρ· οὐ γὰρ μεταβάλλειν ὅσα μεταβάλλει, εἰ μὴ κινεῖτο. This sentence is awkward and intervenes between two parts of the exposition of the changes to which "air" is subject. What we expect from Theophrastus is something about the κινήσεις αἰδίου, and doubtless he did refer to it here. The clause κινεῖσθαι δὲ αἰὲρ in all probability is sound and derives from him; but the sentence οὐ γὰρ . . . κινεῖτο introduces a foreign element. Perhaps Hippolytus found it in his immediate source.

I add here a note on V<sup>2</sup> 19, 2, where the MSS read ἀνέμους δὲ γεννᾶσθαι, ὅταν ἐκπεπυκνωμένος ὁ αἰὲρ ἀραιωθείς φέρεται, and Diels prints ὅταν ἢ πεπυκνωμένος ὁ αἰὲρ καὶ ὥσθεις φέρεται. This reading seems to me to depart farther than necessary from the MS. text. I would propose ὅταν ἢ π. ὁ αἰὲρ ἢ ἀραιωθείς φέρεται. Though a greater degree of rarefaction or condensation would, according to Anaximenes, result in fire or cloud respectively, it does not appear why he might not have held that a more moderate change in either direction gave rise to wind.

#### c. 11. Xenophanes.

V<sup>2</sup> 34, 16. Diog. L. 9.19, (φήσι) τὰ νέφη συνίστασθαι τῆς ἀφ' ἡλίου ἀτμίδος ἀναφερομένης καὶ αἰρούσης αὐτὰ εἰς τὸ περιέχον.

Diels still regards this doxography preserved by Diogenes as derived from Theophrastus through the biographical line of tradition.

The whole account is, as Diels, *Doxographi Graeci*, p. 168, pointed out, remarkable for its curious statements. I confess that, if it be really derived from Theophrastus, it seems to me to have suffered changes similar in character to those of the doxography of Hippolytus (V<sup>2</sup> 41, 25 sq.), which owes much of its data to the Pseudo-Aristotelian treatise De Melisso, Xenophane, Gorgia. But first let us speak of the passage transcribed above. What Xenophanes taught concerning the origin of clouds is clearly stated by Aet. 3. 4. 4 (V<sup>2</sup> 43, 20), ἀνελκομένου γὰρ ἐκ τῆς θαλάττης τοῦ ὑγροῦ τὸ γλυκὺ διὰ τὴν λεπτομέρειαν διακρινόμενον νέφη τε συνιστάνειν ὀμιχλούμενον καὶ καταστάζειν ὄμβρους ὑπὸ πλῆσεως καὶ διατμίζειν τὰ πνεύματα. Cp. also fr. 30. It is clear that Theophrastus simply stated the theory of the meteoric process, according to which clouds originate from vapors rising under the action of solar heat and lifting skyward. In the text of Diogenes we readily note two inaccuracies. We should doubtless read ὑφ' for ἀφ', since vapors rising from the sun are sheer nonsense. The other difficulty is at first more puzzling; for a vapor lifting clouds skyward is nonsense likewise. The vapor condensed to mist or fog (ὀμιχλούμενον) is cloud. I therefore suggested to Professor Diels that we bracket αὐτὰ and take αἰρούσης in its intransitive sense: he records, but does not accept, the proposal in his third edition. It is at once clear that this would remove all difficulties from the passage. Probably Professor Diels was doubtful about the intransitive use of αἶρω, which the lexicographers almost entirely ignore. Of that usage I gave examples in a *Note on Menander, Epitrepontes 103 sq.*, published in Berl. Philol. Wochenschr., 1909, No. 16, col. 509 sq. I there cited Plato, Phaedr. 248 A, Arist. Respir. 475<sup>a</sup> 8 and 479<sup>a</sup> 26, Sophocl. Philoct. 1330. To these instances I would now add Sophocl. O. R. 914 and the Schol. to Sophocl. ad loc. and p. 239, 4; Proclus in Tim. I. 78, 2 Diehl. Other examples, concerning which there may be some doubt, I now omit, but may recur to the subject another time. There can be no question, therefore, that αἶρειν was used intransitively, and in our passage the change appears to be demanded by the sense. Probably some one not familiar with the usage added αὐτὰ in order to supply an object, but in so doing he gave us nonsense.

In this same paragraph occur the words (V<sup>2</sup> 34, 18) ὄλον δὲ ὄραν καὶ ὄλον ἀκούειν, μὴ μέντοι ἀναπνεῖν. I discussed this passage briefly in *Antecedents of Greek Corpusecular Theories*, p. 137 sq., pointing out its agreement with Plato, Tim. 32 C-33 C. I ought in justice to say that the parallel had been previously noted by Tannery, *Pour l'histoire de la science hellène*, p. 121, though the fact had slipped from my memory.



Since my previous discussion I have come to doubt whether the words of the Timaeus may be used to support the statement of Diogenes. About the agreement itself there can be no question. Plato does not, however, mention Xenophanes, and there is no indication in his text that what he says is to be taken as a correct statement of his doctrine. If we were quite sure that the report of Diogenes came materially unchanged from Theophrastus, the parallel would unquestionably prove that Xenophanes expressly denied the doctrine of the cosmic respiration. Tannery would then be justified in holding, as he did, that the brief notice of Diogenes was a precious document showing beyond question that Xenophanes was engaged in a sharp polemic against the Pythagoreans, whose doctrine, amply attested by Aristotle, he emphatically denied. Tannery's position would be untenable except on the assumption that Pythagoras himself proposed the theory of cosmic respiration: the testimony of Aristotle, however, who refers (as always) not to Pythagoras but to the Pythagoreans, is scarcely adequate to establish it. On the other hand, as has already been said, the accuracy and integrity of the account of Diogenes is subject to grave suspicion. The statement with which it opens, that Xenophanes held the doctrines of the four physical elements (στοιχεῖα) and of innumerable worlds, cannot be reconciled with other data unquestionably derived from Theophrastus. Again, the sentence V<sup>2</sup> 34, 19, πρῶτός τε ἀπεφώνησε ὅτι πᾶν τὸ γινόμενον φθαρτὸν ἐστὶ, in which Otto Gilbert, *Die meteorol. Theorien des gr. Altertums*, p. 98, n. 1, sees "nur ein ungenauer Ausdruck für die Rückbildung der Elemente in den Urstoff" (!), appears to be nothing but an echo of the anecdote related by Arist. Rhet. 2.23 1399<sup>b</sup> 6 (V<sup>2</sup> 35, 21), οἶον Ξενοφάνη ἐλεγεῖν ὅτι "ὁμοίως ἀσεβοῦσιν οἱ γενέσθαι φάσκοντες τοὺς θεοὺς τοῖς ἀποθανεῖν λέγουσιν," and of De Melisso, Xenophane, Gorgia, 977<sup>a</sup> 14 sq., which latter passage in turn incorporates arguments derived from Plato. This fact should give us pause, and suggests that Diogenes's account of the philosophy of Xenophanes is derived from a source which, like that of Hippolytus (V<sup>2</sup> 41, 25 sq.) and Simplicius (V<sup>2</sup> 40, 21 sq.), sought to eke out the scanty Theophrastean summary with information coming from the spurious De Melisso, Xenophane, Gorgia, and ultimately from the Timaeus and Parmenides of Plato. I am therefore inclined to believe that the statement of Diogenes, μὴ μέντοι ἀναπνεῖν, rests solely on the Timaeus, which the compiler regarded as a trustworthy source for the philosophy of Xenophanes.

I may add a brief note on the word πρῶτος in the sentence just quoted (V<sup>2</sup> 34, 19). Diels long ago observed that the claim of

Xenophanes to be the originator of this doctrine is absurd and opposed to statements of Aristotle and Theophrastus. How came the claim to be made? During the sixth and fifth centuries B. C., as we well know, much interest attached to the inventors of contrivances and the first propounders of ideas, as was entirely natural in the fine burst of individualism characteristic of the epoch. We commonly think of the passionate quest for εὑρήματα during the Alexandrian Age, but Herodotus (1.25; 1.171; 2.4; 2.24; 2.109; 3.131; 4.42; 4.44) and the earlier logographers display the same interest. The exaggerations to which claims of this nature led have been well illustrated by Professor J. S. Reid, *Lucretiana*, Harvard Studies in Class. Philol., Vol. 22 (1911), p. 1 sq. in his note on Lucret. 1, 66 sq. Certain peculiarities of phrase used in such connections deserve attention. Thus Herod. 1.25 says, Γλαύκου τοῦ Χίου, ὃς μόνος δὴ πάντων ἀνθρώπων σιδήρου κόλλησιν ἐξέῳρε, using μόνος, where we might have expected πρῶτος, to denote the sole original authorship of Glaucus. When data were collected for the later compilations such turns may have given rise to errors. In some such way we may perhaps account for the embarrassment of Simplicius (V<sup>2</sup> 18, 19) in regard to Anaximenes: ἐπὶ γὰρ τούτου μόνου Θεόφραστος . . . τὴν μάνωσιν εἴρηκε καὶ πύκνωσιν, δῆλον δὲ ὡς καὶ οἱ ἄλλοι τῇ μανότητι καὶ πυκνότητι ἐχρῶντο. Here Diels formerly accepted Usener's suggestion of πρῶτου for μόνου, but has latterly with good reason returned to the MS. reading, which the context requires.

V<sup>2</sup> 36. De Melisso, Xenophane, Gorgia 977<sup>a</sup> 18, ταῦτα γὰρ ἅπαντα τοῖς γε ἴσοις καὶ ὁμοίως ὑπάρχειν πρὸς ἄλληλα.

Here Diels follows the reading of L, except that he rightly changes ταῦτα to ταῦτά: R, which is second only to L, gives ἴσοις ἢ ὁμοίως. Probably neither reading is correct. Arist. De Gen. et Corr. 1. 7. 323<sup>b</sup> 5 has πάντα γὰρ ὁμοίως ὑπάρχειν ταῦτα τοῖς ὁμοίοις. Both passages, however, rest upon Plato, Parm. 139 E-140 D, where the implications of the ὁμοιον and ἀνόμοιον are first considered, then those of the ἴσον and ἄνισον. In view of this fact I think we should read τοῖς γε ἴσοις καὶ <ὁμοίοις> ὁμοίως.

#### c. 12. Heraclitus.

V<sup>2</sup> 61, 35. Fr. 1, ὁκοίων ἐγὼ διηγέμαι διαιρέων ἕκαστον κατὰ φύσιν καὶ φράζων ὅπως ἔχει.

These words have been variously interpreted. So far as I am aware



everybody has regarded φύσις as meaning "nature" in some one of its numerous acceptations and ἕκαστον as being the immediate object of διαιρέων. With respect to neither word, I believe, is the current opinion correct. The phrase ἕκαστον κατὰ φύσιν, which has been misinterpreted in various connections, means "each after its kind." We shall have to discuss a similar phrase in Empedocles, fr. 110, 5. The object of διαιρέων, as of διηγέσθαι, is contained in ὁκοίων, which ἕκαστον distributes: "Making trial of such arguments and facts as I recount, distinguishing them each after its own kind and declaring the nature of each." I have rendered ὁκως ἔχει ambiguously with "nature," for the phrase occurs frequently in Hippocrates where the φύσις of things is to be explained, when nothing but the context, and often not even that, makes it possible to decide whether φύσις has regard primarily to the process of growth or to the constitution of the thing in which the process eventuates. In this fragment the precise implication of ὁκως ἔχει cannot be determined; below (V<sup>2</sup> 91, 23) in Epicharmus, fr. 4, 6, we shall find an instance of ὡς ἔχει in which the process is obviously intended. I referred briefly to this question in my *Περὶ Φύσεως*, p. 126, n. 180 and p. 127, n. 185, and illustrated the scientific ideal of dividing and simplifying complex problems by distinguishing between classes and individuals, *ibid.* pp. 123-125. Perhaps the most noteworthy text is the following, Hippocr. *Περὶ διαίτης ὁξέων*, 1 (2. 226 L.), ἀτὰρ οὐδὲ περὶ διαίτης οἱ ἀρχαῖοι ξυνέγραψαν οὐδὲν ἄξιον λόγου, καίτοι μέγα τοῦτο παρήκαν. τὰς μέντοι πολυτροπίας τὰς ἐν ἑκάστη τῶν νούσων καὶ τὴν πολυσχιδίην αὐτέων οὐκ ἠγνόεον ἔνιοι· τοὺς δὲ ἀριθμοὺς ἑκάστου τῶν νοσημάτων σάφα φράζειν ἐθέλοντες, οὐκ ὀρθῶς ἔγραψαν· μὴ γὰρ οὐκ εὐαρίθμητον εἶη, εἰ τουτέω τις σημανεῖται τὴν τῶν καμνόντων νούσον, τῷ ἑτέρου ἐτέρου διαφέρειν τι, καὶ, ἢν μὴ τωὐτὸ νούσημα δοκέη εἶναι, μὴ τωὐτὸ οὐνομα ἔχειν.

V<sup>2</sup> 65, 10. Fr. 18, ἐὰν μὴ ἔλπηται, ἀνέλπιστον οὐκ ἐξευρήσει, ἀνεξερεύνητον ἔδον καὶ ἄπορον.

Here, as in fr. 27, Diels and Nestle translate ἔλπομαι with "hope." Burnet here renders the word with "expect," there with "look for," in either case correctly. I am not sure, however, that he understands our fragment as I do. It is well known that ἐλπίς may signify any degree of expectation ranging from vague surmise to lively hope or fear. In reading this fragment I am constantly reminded of a story which Tyndall tells of Faraday, who required to be told precisely what to look for before observing an experiment which was in preparation. All scientific observation, whether assisted or not assisted by

carefully controlled experimentation, presupposes an ἐλπίς — surmise or clearly formulated anticipation — of that which observation will show. To form such a conception is to exercise the scientific imagination, and the findings anticipated assume the shape of a theory or an hypothesis. Early Greek philosophy was so prolific of nothing else as of hypotheses, and the philosophy of Heraclitus in particular is nothing but a bold hypothesis, whatever concrete observations may have led him to propound it. Now, that is precisely what I conceive our fragment to mean: "*Except a man venture a surmise, he will not discover that which he has not surmised; for it is undiscoverable and baffling.*" Fr. 123, φύσις κρύπτεσθαι φιλεῖ, 'the processes of nature are not to be read by him who runs, for the true inwardness of things does not appear on the surface', is probably to be understood in the same sense; for ἀρμονίη ἀφανὴς φανερῆς κρείττων (fr. 54). So, too, fr. 86, ἀπιστίη διαφύγγανει μὴ γινώσκεισθαι, probably refers not to faith in a dogma or a revelation but to the scientific faith which is the evidence of things not seen.

V<sup>2</sup> 64, 1. Fr. 10, συνάψεις ὅλα καὶ οὐχ ὅλα, συμφερόμενον διαφερόμενον, συνᾶδον διᾶδον, καὶ ἐκ πάντων ἐν καὶ ἐξ ἐνὸς πάντα.

I do not recall seeing anywhere a reference to the evident reminiscence of this fragment in Seneca, *De Otio*, 5. 6, *utrum contraria inter se elementa sint, an non pugnent, sed per diversa conspirent.*

V<sup>2</sup> 66, 13. Fr. 28, δοκέοντων γὰρ ὁ δοκιμώτατος γινώσκει φυλάσσειν· καὶ μέντοι καὶ δίκη καταλήψεται ψευδῶν τέκτονας καὶ μάρτυρας, ὁ Ἐφέσιός φησιν.

The text of this fragment is regarded by all critics as desperate, and desperate measures have been taken to restore it. I have no desire to canvass them, but shall offer an interpretation which, with a minimal alteration, appears to render it intelligible and quite as defensible as the texts obtained by introducing more radical changes. First of all, it seems clear that γὰρ is due to Clement, who quotes the sentence, and must be set aside as not belonging to Heraclitus. This is the view of Bywater, who omits the word. If that be true, what is there to hinder our taking δοκέοντων as an imperative? It wants a subject, but that was doubtless supplied by the context from which the sentence was obviously wrested. A plausible conjecture is made possible by the reference in the last clause to the inventors and supporters of lies, who are clearly contrasted with those who receive



the philosopher's scornful permission to hold an opinion. If δοκούντων has that meaning, it is transitive as in Herod. 9. 65, δοκέω δέ, εἴ τι περὶ τῶν θείων πρηγμάτων δοκέειν δεῖ. Whether we shall read δ for ὁ or assume that δ was omitted by haplography before ὁ δοκιμώτατος is difficult to decide; for, as Diels has remarked, Heraclitus is sparing in the use of the article. I incline to insert <δ>, or possibly <ᾱ>, the only change I consider necessary in the text. Critics appear to consider γινώσκει φυλάσσειν impossible or unintelligible. It is well known, however, that οἶδα and ἐπίσταμαι are used with the infinitive in the sense of "knowing how" to do anything, and in some cases the nuance given by these verbs is so slight as to be best disregarded in translating the thought into English. It is difficult to see why γινώσκω should not be used in the same construction as οἶδα and ἐπίσταμαι. In fact we have two passages which are calculated to support the assumption that it was so used. Sophocl. Ant. 1087,

ἵνα  
τὸν θυμὸν οὗτος ἐς νεωτέρους ἀφῇ  
καὶ γινῶ τρέφειν τὴν γλῶσσαν ἡσυχωτέραν.

Eurip. Bacch. 1341,

εἰ δὲ σωφρονεῖν  
ἔγνωθ', ὅτ' οὐκ ἠθέλετε, τὸν Διὸς γόνον  
εὐδαιμονεῖτ' ἂν σύμμαχον κεκτημένοι.

Goodwin, *Greek Moods and Tenses*, 915, 3 (c), mentions the first passage only and takes γινώσκω (ἔγνω) in the sense of "learning." The ingressive aorist naturally bears this sense; but it does not exclude the same construction with the present, as may be seen by comparison with ἐπίσταμαι, which shows the same meaning in the ingressive aorist, Herod. 3. 15, εἰ δὲ καὶ ἡπιστήθη μὴ πολυπραγμονεῖν. This line of argument would perhaps not suffice to justify a conjectural introduction of γινώσκει into the text, but it is an adequate defense of a MS. reading. We have then to consider the meaning of φυλάσσειν. Here we are thrown upon the fragment itself as our only resource, since the verb has a great variety of meanings. There seems to be a slight clue in the last clause. Diels appears to be right in assuming that Homer, Hesiod, and the like, are the ψευδῶν τέκτονες καὶ μάρτυρες. If this conjecture be true, it is not difficult to see that ψευδῶν τέκτονες characterizes them as inventors of lies, and that ψευδῶν μάρτυρας can hardly mean those who commit perjury, but must rather refer to the witness they bear to falsehoods by recording

them in their verse. In other words, the woe pronounced upon the poets is for originating and perpetuating false views, whether they relate to the gods, to the desirability of banishing discord, or what not. But φυλάσσειν does bear this precise sense of "perpetuating," and we may be justified in accepting it as referring to the παράδοσις of poetical tradition. I think it probable that ὁ δοκιμώτατος refers to Homer as the coryphaeus of the group of false teachers of the multitude whom Heraclitus is denouncing, and that the epithet signifies nothing more than that he is held in the highest esteem, although fr. 57 would perhaps rather suggest Hesiod. The subject of δοκούντων, then, is the uncritical multitude, who live according to the tradition of the fathers (fr. 74) and may be pardoned for what they do in ignorance, though woe shall be unto those through whom offence cometh. Accordingly I should translate the fragment rather freely somewhat after this manner: "Ay, let them think as he who is most highly esteemed among them contrives to report; but verily, judgment shall overtake those who invent and attest falsehoods." It is hardly necessary to add that Heraclitus was not threatening Homer with hell-fire, as Clement would have us suppose.

V<sup>2</sup> 68, 11. Fr. 41, ἐν τῷ σοφόν, ἐπίστασθαι γνώμην, ὅτῃ ἐκυβέρνησε πάντα διὰ πάντων.

Here I accept the text, but not the interpretation of Diels, who renders the fragment thus: "In Einem besteht die Weisheit, die Vernunft zu erkennen, als welche alles und jedes zu lenken weiss." Nestle translates γνώμην with "Geist"; and Burnet, with "thought." In order to arrive at the thought of Heraclitus, it is needful first of all to note how in a number of his fragments, which are concerned with his conception of true wisdom, he surcharges with meaning the terms for knowledge in contradistinction to sense-perception or opinion. Fr. 17, οὐ γὰρ φρονέουσι τοιαῦτα πολλοί, ὅκοσοι [so Diels, V<sup>3</sup>] ἐγκυρεῖσιν, οὐδὲ μαθόντες γινώσκουσιν, ἐνωτοῖσι δὲ δοκέουσι, "The majority of mankind [this, I think must be the meaning of πολλοί, whether or not with Bergk we add οἱ], so far as they meet such problems, do not comprehend them even when instructed, though they think they do." Fr. 34, "They that lack understanding (ἄξυνετοι) hear, but are like unto them that are deaf." Fr. 35, "Men who are lovers of wisdom must have acquired true knowledge of full many matters" (εὖ μάλα πολλῶν ἱστορας εἶναι). But Heraclitus is well aware that much instruction (cp. μαθόντες, fr. 17) does not impart understanding (fr. 40, πολυμαθὴ νόον ἔχειν οὐ διδάσκει. Ἡσίοδον γὰρ ἂν ἐδίδαξε καὶ Πυθαγόρην αὐτὶς τε



Ξενοφάνεά τε καὶ Ἑκαταῖον), else would the champions of the new, self-styled *ιστορίη* and Hesiod, their coryphaeus, have got understanding. The same pregnancy of meaning as in fr. 17 attaches to *γινώσκειν* in fr. 108, to be discussed more at length below, and in fr. 57, where Heraclitus says that Hesiod, whom men regard as most knowing, did not really comprehend (*οὐκ ἐγίνωσκεν*) day and night; for, contrary to his opinion, they are one. It is thus clearly shown that by understanding Heraclitus means a cognitive faculty or act which penetrates beyond superficial differences and distinctions, present to sense and uncritical fancy, to an inner core of truth, and is characterized by the apprehension of a fundamental unity. Again, the same point of view finds expression in fr. 56, where he likens mankind, readily duped when it comes to a true understanding of the surface show of things (*ἐξηπάτηνται οἱ ἄνθρωποι πρὸς τὴν γνῶσιν τῶν φανερώων*), to Homer, who could not read a foolish riddle propounded to him by *gamins*. Above, in discussing fr. 18, I have already touched on fr. 86, *ἀπιστίη διαφυγγάνει μὴ γινώσκεσθαι*, maintaining that Heraclitus meant to imply that the true meaning of things is missed for want of a confident act of imaginative anticipation, whereby that which does not obtrude itself on our senses is brought home to the understanding. It is perhaps not too fanciful to detect the same distinction between sense and understanding, where understanding involves the synthesis of apperception, in fr. 97, *κύνες γὰρ καταβαῦζουσιν ὧν ἂν μὴ γινώσκωσι*. Heraclitus would thus be merely repeating the distinction of Alcmaeon, fr. 1<sup>a</sup> (V<sup>2</sup> 103, 25), *ἄνθρωπον γὰρ φησι τῶν ἄλλων* (sc. ζώων) *διαφέρειν ὅτι μόνον ξυνίησι, τὰ δ' ἄλλα αἰσθάνεται μὲν, οὐ ξυνίησι δέ*.

Returning now to fr. 41 after a considerable *détour*, we naturally pause again before the phrase *ἐπίστασθαι γνῶμην*, which is the real crux. Scholars appear to be fairly unanimous in holding that, whether it means "Vernunft," "Geist," or "thought," *γνῶμην* is an accusative of the external object, being, in fact, the divine entity which rules the world. Heraclitus *ὁ κυκλήτης* does not much encourage fine distinctions, but to me this interpretation seems to yield a Stoic rather than a Heraclitean thought. In obvious reminiscence of our fragment and of fr. 32, *ἐν τῷ σοφῶν μόνον λέγεσθαι οὐκ ἐθέλει καὶ ἐθέλει Ζηνὸς ὄνομα*, Cleanthes, H. in Iov. 30 could say,

δὸς δὲ κυρῆσαι  
γνώμης, ἣ πῖσυνος σὺ δίκης μέτα πάντα κυβερνᾷς.

But Cleanthes was clearly writing from a different, and a later, point of view, for which the *οὐκ ἐθέλει* of Heraclitus had no real

significance. Following him and having regard to Antipho Soph. fr. 1 (V<sup>2</sup> 591, 18, *γνῶμην γινώσκει*, and V<sup>2</sup> 592, 4, *γνῶμην νῶσαι*) one might incline to propose to emend *γνῶμην* and read *γνῶμην ἐπίστασθαι* in Heraclitus. I should regard that, however, as an error; for I hold that *γνῶμην* is an accusative of the inner object. In other words, *ἐπίστασθαι γνῶμην* is a periphrasis for *γινώσκειν*. In the time of Heraclitus *ἐπίστασθαι* had not yet acquired the technical sense which it later bore in philosophical prose: in fr. 57, *τοῦτον ἐπίστανται πλείστα εἰδέναι*, it means to "fancy"; in fr. 19, *ἀκοῦσαι οὐκ ἐπιστάμενοι οὐδ' εἰπεῖν*, to "be skillful." The latter sense is common from Homer onward, the former in Herodotus. It is not surprising, therefore, that Heraclitus should wish to reinforce it with a cognate substantive. A similar turn recurs in Ion of Chios, fr. 4 (V<sup>2</sup> 222, 28 sq.),

ὥς ὁ μὲν ἠγορέη τε κεκασμένος ἦδ' αἰδοῖ  
καὶ φθίμενος ψυχῇ τερπνὸν ἔχει βίοντον,  
εἴπερ Πυθαγόρης ἐτύμως ὁ σοφὸς περὶ πάντων  
ἀνθρώπων γνῶμας ἦδεε κάξέμαθεν.

Here Diels, whose emendation, *ἦδεε* for *εἶδε* I heartily approve, renders *γνῶμας ἦδεε κάξέμαθεν* with "Einsichten erworben und erforscht hat." I believe we have a sort of *hysteron proteron*, and that Ion (for, herein differing from Diels, I believe the verses are his) meant "if Pythagoras was well informed and really knew whereof he spoke." This interpretation of Ion's phrase is proved correct beyond a doubt by Theognis, 59,

ἀλλήλους δ' ἀπατῶσιν ἐπ' ἀλλήλοισι γελῶντες,  
οὔτε κακῶν γνῶμας εἰδότες οὔτ' ἀγαθῶν.

The couplet was reproduced with slight modifications by an unintelligent imitator, Theognis 1113,

ἀλλήλους δ' ἀπατῶντες ἐπ' ἀλλήλοισι γελῶσιν,  
οὔτ' ἀγαθῶν μνήμην εἰδότες οὔτε κακῶν.

Here we must without doubt adopt Hecker's emendation *γνῶμην* for *μνήμην*. The imitator did not perceive the true significance of the original, which sought to hold up to scorn the blissful Edenic ignorance of good and evil characteristic of the new-made lords of Megara, who but recently, clad in goat-skins, lived like pasturing deer in the wilds without the city walls, but now in the city light-heartedly hoodwink one another. Clearly *γνῶμας εἰδέναι* is a mere periphrasis for *εἰδέναι*. A similar reinforcement of *εἰδέναι* occurs in the LXX. account



of Eden, Gen. 2. 9, τὸ ξύλον τοῦ εἶδέναι γνωστὸν καλοῦ καὶ πονηροῦ, where, but for the confirmation of the MS. text by Philo Jud. 1. 55, 27, one might be inclined to suspect that γνωστὸν was a corruption of γνώσιν or γνώμην. If Ion's phrase reminds us of such Homeric locutions as νοήματα ἤδη (β 121) and μήδεα οἶδε (Σ 363), we find something closely analogous to that of Heraclitus in Plato, Apol. 20 E, οὐ γὰρ δὴ ἔγωγε αὐτὴν (sc. τὴν σοφίαν) ἐπίσταμαι. In this last phrase, however, the comparison with 20 D, κινδυνεύω ταύτην εἶναι σοφός, may suggest that Plato had in mind the old force of ἐπίστασθαι, "be skillful." However, Theognis 564, σοφίην πᾶσαν ἐπιστάμενον, has the same construction. Cp. ibid. 1157. If, then, we so interpret ἐπίστασθαι γνώμην, we cannot take the relative ὅτι so closely with γνώμην as the ordinary view requires. I should rather say that ὅτι was roughly equivalent to ἡ γε, *quippe quae*, as ὅστις in fr. 57 means *ut pote qui*, and render the fragment somewhat as follows: "One thing only is wisdom: to get Understanding: she it is that pervades all things and governs all."

V<sup>2</sup> 69, 2. Fr. 48, τῷ οὖν τόξῳ ὄνομα βίος, ἔργον δὲ θάνατος.

Diels, *Die Anfänge der Philologie bei den Griechen*, Neue Jahrbücher, xxv (1910), I. Abteilung, p. 3, says, "Der Gleichklang der Worte βίος (Pfeil) und βίος (Leben) war ihm ein äusseres Zeichen für seine Lehre, dass die Gegensätze Leben und Tod im Grunde eins seien." Zeller I, 640, n. 2, expresses himself in much the same way. I have no desire to controvert this interpretation, so far as it goes; but it seems to me that the words of Heraclitus imply much more. In V<sup>3</sup> Diels properly refers to Hippocrates, Περὶ τροφῆς, 2 (V<sup>2</sup> 86, 1 sq.), τροφή οὐ τροφή, ἣν μὴ δύνηται, οὐ τροφή τροφή, ἣν οἶόν τε ἢ τρέφειν· οὐνομα τροφή, ἔργον δὲ οὐχί· ἔργον τροφή, οὐνομα δὲ οὐχί. With this passage of undoubtedly Heraclitean origin we should take fr. 37, *sues caeno, cohortales aves pulvere vel cinere lavari*; for the thought apparently is that mud and dust are not ὀνόματι water, but are ἔργῳ identical with it. Fr. 13, δὲ γὰρ τὸν χαρίεντα μήτε ῥυπᾶν μήτε αὐχμεῖν μήτε βορβόρῳ χαίρειν καθ' Ἡράκλειτον, where βορβόρῳ χαίρειν alone seems to belong to Heraclitus, may conceivably have reference to the same problem, the philosopher meaning to imply that we should call things and men by names conformable to their ἔργον: by their fruits ye shall know them! Plotinus Enn. 1. 6. 6, ἔστι γὰρ δὴ, ὥς ὁ παλαιὸς λόγος, καὶ ἡ σωφροσύνη καὶ ἡ ἀνδρεία καὶ πᾶσα ἀρετὴ κάθαρσις καὶ ἡ φρόνησις αὐτῇ· διὸ καὶ αἱ τελεταὶ ὁρθῶς αἰνίττονται τὸν μὴ κεκαθαρμένον καὶ εἰς [an ἐν?] ἄδου κείσεσθαι ἐν βορβόρῳ, ὅτι τὸ μὴ καθαρὸν βορβόρῳ διὰ κάκην φίλον· οἷα δὴ

καὶ ὕες, οὐ καθαροὶ τὸ σῶμα, χαίρουσι τῷ τοιούτῳ, obviously glancing at fr. 13, suggests the possibility that Heraclitus used the words in connection with a discussion of the mysteries, with the intent of which he seems to have been satisfied, while he denounced their forms. Thus, fr. 5, καθαίρονται δ' ἄλλως αἵματι μαινώμενοι οἷον εἴ τις πηλὸν ἐμβὰς πηλῷ ἀπονίζοιτο, we find a context in which he may have distinguished between the form and the substance, the ὄνομα and the ἔργον. Be that as it may, there is abundant evidence that Heraclitus had grasped the fruitful principle that the true nature of a thing is to be understood in relation to its function or ἔργον. We are familiar enough with his interest in etymologies, which reveals the desire to detect the true meaning of objects in the derivation of their names; but the study of homonyms, which our fragment reveals, almost necessarily involved a corresponding attention to synonyms, in which words of very different origin and etymology are shown to have a common meaning. The test of identity or difference of meaning Heraclitus found in the ἔργον of the thing. Plato, in a passage clearly under the influence of Heraclitus, Crat. 394 A sq., develops this twofold principle, which underlies the study of homonyms and synonyms, referring to the law of uniformity in nature, in accordance with which like begets like, and concludes therefrom that, as the physician recognizes drugs by their physiological action (δύναμις = ἔργον), not allowing himself to be deceived by their several disguises, so the philosopher must apply the same name to parent and offspring, or at any rate he must learn to detect the identity of concepts by whatever names they may go. Plato is obviously developing ideas derived from Heraclitus, partly such as are expressed in the fragments above cited, partly those of fr. 67, which we shall presently discuss more at length. In Tim. 50 A-51 B Plato combines in a highly suggestive way Heraclitean and Eleatic concepts, very much as he develops the law of uniformity, mentioned in the Cratylus, into the principle of interaction (ποιεῖν καὶ πάσχειν) in Gorg. 476 B sq. In the living tissue of so vital a tradition as Greek philosophy presents we expect to find continuous developments of this kind. What is more difficult is the task of discriminating the stages marked by the individuals who contributed to the total result. In regard to the particular question with which we are now concerned, it is clear that Heraclitus and the Heracliteans laid the foundations for the Socratic procedure of definition by noting the essential importance of the ἔργον in determining the meaning of a concept. It was Socrates, however, who elaborated the method of definition on the basis of dialectic, thus in turn laying the foundations of the science of logic.



V<sup>2</sup> 69, 10. Fr. 50, Ἡράκλειτος μὲν οὖν <ἐν> φησιν εἶναι τὸ πᾶν διαίρετον ἀδιαίρετον, γενητὸν ἀγένητον, θνητὸν ἀθάνατον, λόγον αἰῶνα, πατέρα υἱόν, θεὸν δίκαιον· οὐκ ἐμοῦ, ἀλλὰ τοῦ λόγου ἀκούσαντας ὁμολογεῖν σοφὸν ἐστὶν ἐν πάντα εἶναι ὃ Ἡράκλειτος φησι.

It is agreed that the authentic words of Heraclitus begin with οὐκ ἐμοῦ: what precedes we owe to Hippolytus, who obviously modeled his introductory statement on fr. 67. The comparison of the two passages shows that Bergk's <ἐν>, which Diels adopts, is unnecessary. The predicates of τὸ πᾶν are, as one sees at a glance, arranged in contrasted pairs. In the fourth pair, λόγος is of course the intelligible principle, virtually the κόσμος νοητός, opposed to αἰών which is the κόσμος αἰσθητός. The next pair, πατέρα υἱόν, is of course of Christian origin. Apparently the last, θεὸν δίκαιον, has puzzled Professor Diels; for he now (V<sup>3</sup>) proposes to insert [ἀδικον] after δίκαιον. I long ago saw that this pair was suggested to Hippolytus or his source by Plato, Crat. 412 C-413 D, but had taken for granted that this was a matter of common knowledge and not worthy of special notice, until Diels's note undeceived me. I observe that Otto Gilbert, *Griech. Religionsphilosophie*, p. 62, n. 1, also noticed the connection. He there proposes a different interpretation of αἰών, but his suggestion I take to be too clearly mistaken to require refutation. In reference to θεὸν δίκαιον, it ought to be said that Hippolytus possibly wrote διαῖον (= ἡλίον), and that δίκαιον may be due to the copyist; but there is no sufficient justification for making a change in the text. Diels is probably right in adopting Miller's εἶναι for the εἰδέναι of Par.; but εἰδέναι may possibly have been originally a gloss on ὁμολογεῖν; for if ὁμολογεῖν is sound it must be interpreted here, as in fr. 51, with reference to Heraclitean etymology, as "sharing in the (a) common λόγος."

V<sup>2</sup> 71, 15. Fr. 67, ὁ θεὸς ἡμέρη εὐφρόνη, χειμῶν θέρος, πόλεμος εἰρήνη, κόρος λιμός (τὰναντία ἅπαντα· οὗτος ὁ νοῦς), ἀλλοιοῦται δὲ ὅκωσπερ <πῦρ>, ὁπότεν συμμιγῇ θνώμασιν, ὀνομάζεται καθ' ἡδονὴν ἐκάστου.

This is the text of Diels. I hope to make it clear that it is not correct, and to show also what Heraclitus wrote and what he meant. In order to understand and reconstruct this fragment we must compare two passages from Plato, in which he obviously alludes to it. Crat. 394 A, οὐκοῦν καὶ περὶ βασιλέως ὁ αὐτὸς λόγος; ἔσται γὰρ ποτε ἐκ βασιλέως βασιλεὺς, καὶ ἐξ ἀγαθοῦ ἀγαθός, καὶ ἐκ καλοῦ καλός, καὶ τᾶλλα

πάντα οὕτως, ἐξ ἐκάστου γένους ἕτερον τοιοῦτον ἔκγονον, ἐὰν μὴ τέρας γένηται· κλητέον δὲ ταῦτα ὀνόματα. ποικίλλειν δὲ ἔξεστι ταῖς συλλαβαῖς, ὥστε δόξαι ἂν τῷ ἰδιωτικῶς ἔχοντι ἕτερα εἶναι ἀλλήλων τὰ αὐτὰ ὄντα· ὥσπερ ἡμῖν τὰ τῶν ἱατρῶν φάρμακα χρώμασιν καὶ ὁσμαῖς πεποικιλμένα ἄλλα φαίνεται τὰ αὐτὰ ὄντα, τῷ δὲ γε ἱατρῷ, ἅτε τὴν δύναμιν τῶν φαρμάκων σκοπομένῳ, τὰ αὐτὰ φαίνεται, καὶ οὐκ ἐκπλήττεται ὑπὸ τῶν προσόντων. οὕτω δὲ ἴσως καὶ ὁ ἐπιστάμενος περὶ ὀνομάτων τὴν δύναμιν αὐτῶν σκοπεῖ, καὶ οὐκ ἐκπλήττεται εἴ τι πρόσκειται γράμμα ἢ μετάκειται ἢ ἀφήρηται, ἢ καὶ ἐν ἄλλοις παντάπασιν γράμμασιν ἐστὶν ἢ τοῦ ὀνόματος δύναμις. ὥσπερ ὁ νυνδὴ ἐλέγομεν, "Ἀστυάναξ" τε καὶ "Ἐκτωρ" οὐδὲν τῶν αὐτῶν γραμμάτων ἔχει πλὴν τοῦ ταυ, ἀλλ' ὅμως ταῦτόν σημαίνει. καὶ "Ἀρχέπολις" γε τῶν μὲν γραμμάτων τί ἐπικοινωνεῖ; δηλοῖ δὲ ὅμως τὸ αὐτό· καὶ ἄλλα πολλά ἐστὶν ἃ οὐδὲν ἄλλ' ἢ βασιλέα σημαίνει· καὶ ἄλλα γε αὖ στρατηγόν, οἷον "Ἄγης" καὶ "Πολέμαρχος" καὶ "Εὐπόλεμος". καὶ ἱατρικά γε ἕτερα, "Ἰατροκλῆς" καὶ "Ἀκείμβροτος"· καὶ ἕτερα ἂν ἴσως συχνὰ εὐροιμεν ταῖς μὲν συλλαβαῖς καὶ τοῖς γράμμασι διαφωρῶντα, τῇ δὲ δυνάμει ταῦτόν φθεγγόμενα. The general connection of this passage with the Heraclitean doctrine of the ἔργον was noted above in the discussion of fr. 48. The δύναμις or specific physiological action of the drug is compared to the δύναμις of a word, its "force" or meaning. The identity of meaning in words that are different (διαφωρονδύνα, τὰναντία ἅπαντα), and the methods employed to produce variation (ποικίλλειν, ἀλλοιοῦται),—these are the themes common to Heraclitus and Plato. We naturally think of Heraclitus, fr. 15, ὡντὸς δὲ Ἄϊδης καὶ Διόνυσος, and fr. 57, ὅστις ἡμέρη καὶ εὐφρόνη οὐκ ἐγίνωσκεν· ἔστι γὰρ ἓν. The second passage from Plato, to which I referred above, is Tim. 49 sq., where the relation of the elements to the δεξαμενὴ or the ἐκμαγεῖον is under discussion. It will suffice for our purpose to quote a sentence from 50 E, διὸ καὶ πάντων ἐκτὸς εἰδῶν εἶναι χρεὼν τὸ τὰ πάντα ἐκδεχόμενον ἐν αὐτῷ γένη, καθάπερ περὶ τὰ ἀλείμματα ὁπόσα εὐήδη τέχνη μηχανῶνται πρῶτον τοῦτ' αὐτὸ ὑπάρχον, ποιοῦσιν ὅτι μάλιστα ἀώδη τὰ δεχόμενα ὑγρὰ τὰς ὁσμάς· ὅσοι τε ἐν τισιν τῶν μαλακῶν σχήματα ἀπομάττειν ἐπιχειροῦσι, τὸ παράπαν σχῆμα οὐδὲν ἐνδὲλον ὑπάρχειν ἐώσι, προομαλύναντες δὲ ὅτι λειότατον ἀπεργάζονται. Plato here employs two comparisons to illustrate the relation of the substratum to the elemental forms, borrowing one from the manufacture of unguents, the other from the art of moulding figures in a matrix. The first of these is obviously similar to that above quoted from the Cratylus, and was repeated by Lucret. 2, 847 sq.



sicut amaracini blandum stactaeque liquorem  
et nardi florem, nectar qui naribus halat,  
cum facere instituas, cum primis quaerere par est,  
quoad licet ac possis reperire, inolentis olivi  
naturam, nullam quae mittat naribus auram,  
quam minime ut possit *mixtos in corpore odores*  
concoctosque suo contractans perdere viro,  
propter eandem rem debent primordia rerum  
non adhibere suum gignundis rebus odorem, etc.

Heeding the suggestions afforded by these passages from Plato and Lucretius, which seem to me clearly to reproduce, however freely, the thought of Heraclitus in our fragment, it should be possible with considerable certainty to restore the text and to determine its meaning. It is obvious that in the Cratylus Plato slightly changed the figure, substituting drugs for unguents, because of the advantage of thus being able to appeal to the expert knowledge of the physician. He may have been influenced also by certain Heraclitean elements in the medical literature, such as we find in Hippocrates *Περὶ διαίτης* and *Περὶ τροφῆς*. At all events, it is clear that <πύρ>, which Diels has adopted from the conjecture of Dr. Thomas Davidson, and <οἶνος>, which Bergk proposed, are alike inadmissible. The latter part of the fragment and the use of *θύωμα*, which Hesychius defines with *μύρον* and *ἄρωμα*, point clearly to the conclusion that Heraclitus, as we should infer from Plato and Lucretius, referred to an unguent. The instances of *θύωμα* (Herod. 2. 86; Lucian, *De Dea Syra*, 8 and 46) refer to unguents. If one or the other of the passages in Lucian should be doubtful, there can be no question in regard to Hippocr. *Γυναικείων β*, 209 (8, 404 L.), *ἐψεῖν τὰ θνώματα ἃ ἐς τὸ μύρον ἐμβάλλεται*, with which compare *ibid.* 202 (8, 386 L.) and 206 (8, 398 L.) In the making of unguents (see Blümner, *Technologie und Terminologie der Gewerbe und Künste*<sup>2</sup>, I., 359 sq.), the neutral base, as well as the product resulting from the union of aromatic substances with it, was called *μύρον* or *έλαιον*. The finished product bore a variety of names determined by the volatile ingredients. Theophrastus, *Περὶ ὀσμῶν*, gives ample information, from which we may quote a few sentences. V. 25, *πρὸς ἕκαστον δὲ τῶν μύρων ἐμβάλλουσι τὰ πρόσφορα τῶν ἀρωμάτων, οἷον εἰς μὲν τὴν κύπρον καρδάμωμον, ἀσπάλαθον ἀναφυράσαντες τῷ εὐώδει*. VI. 27, *ἅπαντα δὲ συντίθενται τὰ μύρα τὰ μὲν ἀπ' ἀνθῶν τὰ δὲ ἀπὸ φύλλων τὰ δὲ ἀπὸ κλωνῶν τὰ δ' ἀπὸ ῥίζης τὰ δ' ἀπὸ ξύλων τὰ δ' ἀπὸ καρποῦ τὰ δ' ἀπὸ δακρύων*. *μικτὰ δὲ πάνθ' ὥς εἰπεῖν*. In inten-

tion, therefore, the conjecture of Bernays, *συμμιγῇ <θύωμα> θνώμασι*, was better than either of those which we noticed above; but Diels is right in assuming that the desiderated word is to be supplied after *ὅκωσπερ*. The only point in favor of <πύρ> is that its omission can so easily be explained; but with almost equal ease we can account for the loss of <μύρον>, which is obviously required by the sense and by the Platonic and Lucretian parallels.

But we must now return to the earlier part of the fragment. The words *τάναντία ἅπαντα· οὗτος ὁ νοῦς* have been a stumbling-block. Bywater and Diels bracket them, since they can make nothing of them. Mullach accomplished the same result by making two fragments instead of one, and omitting the troublesome words. But a reference to the passage from the Cratylus should prove beyond question that they belong just where they stand; only one slight change is required, viz, *ὡντός* for *οὗτος*, as Bergk perceived. He says, *Kleine Philol. Schriften*, II. 86, n. 4, "Ceterum etiam verba illa *τάναντία ἅπαντα, οὗτος ὁ νοῦς* non interpretis, sed ipsius Heracliti esse existimo, quae ita videntur corrigenda: *ὁ θεὸς . . . κόρος, τάναντία ἅπαντα· ὡντός νόος· ἀλλοιοῦται δὲ, ὅκωσπερ οἶνος κτλ.*" Unfortunately Bergk did not interpret his proposed text; but judging by his punctuation and the absence of any remark about the force of *νόος*, I venture to suggest that what he had in mind was something like this: "Gott ist . . . Überfluss und Hunger, mit einem Worte, alle Gegensätze. Es ist derselbe Geist," usw. If this suggestion does him justice, it will be seen that he did not really anticipate my proposal except in regard to the change of *οὗτος* into *ὡντός*; and working with the text of Diels, who did not even record the proposal, I did not come upon his emendation until I had reached the same conclusion independently and by a different route. As a matter of fact, it was the passage from the Cratylus which disclosed the connection of ideas and led me to the obviously correct text and interpretation; for I saw at once that *νοῦς* had no reference whatever to *θεός* and did not mean "Geist," but, as in Herod. 7. 162, *οὗτος δὲ ὁ νόος τοῦ ῥήματος*, signified "sense" or "meaning." But, this point once cleared up, it followed at once that we must read *ὡντός* for *οὗτος*, and that *τάναντία ἅπαντα* did not merely add a generalization to sum up the bill of particulars which precedes. In short, *τάναντία ἅπαντα* is the plural form of *τάναντιον ἅπαν*, which occurs, Plato, *Polit.* 310 D, as a variant for the more usual phrase *πάν τούναντιον*; cp. Xen. *Mem.* 3. 12. 4 and (for the adverbial force of *πᾶς* or *ἅπας*) Plato. *Protag.* 317 B.



Restoring to Heraclitus what rightfully belongs to him, we should therefore write the fragment thus: ὁ θεὸς ἡμέρη εὐφρόνη, χειμῶν θέρος, πόλεμος εἰρήνη, κόρος λιμός· τὰναντία ἅπαντα, ὡτὸς ὁ νοῦς· ἀλλοιοῦται δὲ ὅκωσπερ <μύρον>, ὁπότεν συμμιγῇ θυώμασιν, ὀνομάζεται καθ' ἡδονὴν ἐκάστων. "God is day and night, winter and summer, war and peace, satiety and hunger,—opposites quite, but the sense is the same; he changes, however, just as the neutral base employed in making unguents, when it is mixed with volatile essences, receives a name in accordance with the odor of each."

In regard to the philosophical interpretation of the fragment, which thus assumes a rank of capital importance for the thought of Heraclitus, it is hardly necessary to say more at present, than that we must henceforth build upon the foundations laid by Plato, Tim. 48 E-52 C. Plato and Lucretius prove that the same thought lay at the core of the atomic theory, and it is evident that Heraclitus here touched one of the basic conceptions of metaphysics in so far as it is concerned with the relation of the One and the Many. We are therefore called upon to consider the questions which crowd upon us with sobriety and careful discrimination, unless we are to efface the mile-stones that mark the progress of speculation. Such an inquiry is, however, too far-reaching to admit of discussion in this connection.

V<sup>2</sup> 72, 18. Fr. 71, μεμνησθαι δὲ καὶ τοῦ ἐπιλανθανομένου ἢ ἡ ὁδὸς ἄγει.

The meaning, apparently missed by some scholars, is made clear by fr. 117, οὐκ ἐπαῖων ὅκη βαίνει. He forgets *whither he is going*.

V<sup>2</sup> 73, 14. Fr. 77, ψυχῇσι . . . τέρψιν ἢ θάνατον ὑγρῇσι γενέσθαι.

It seems very probable that we are here dealing, if one may so express it, with a conflate text; that is to say, two utterances of Heraclitus, otherwise essentially identical, but differing in this, that one related to τέρψις, the other to θάνατος, appear to have been merged in one. Either statement, taken by itself, is entirely intelligible; but it is improbable that Heraclitus combined them in the manner of this 'fragment.'

V<sup>2</sup> 73, 19. Fr. 78, ἦθος γὰρ ἀνθρώπειον μὲν οὐκ ἔχει γνῶμας, θεῶν δὲ ἔχει.

The word ἦθος is difficult and improbable. I suspect that we should write ἔθνος; cp. Eurip. Orest. 976,

ἰὼ ἰὼ, πανδάκρυτ' ἐφ' αἰμέρων  
ἔθνη πολύπονα.

The iambic movement of the fragment is obvious, and the position of μὲν appears somewhat forced. One is tempted to write the sentence as verse,

ἔθνος μὲν ἀνθρώπειον οὐ γνῶμας ἔχει,  
θεῶν δ' ἔχει.

This may, of course, be nothing more than the work of chance; but the entire cast of the sentence suggests that we are dealing with verse converted into prose. Now we know that there were those who versified the philosophy of Heraclitus. One of their number, Scythinus, a writer of the fourth century, is known by name; and one of the fragments of Scythinus (fr. 2, V<sup>2</sup> 86, 22 sq.) has come down to us reconverted into prose, which Wilamowitz has again rendered in verse. I do not suggest, though it is possible, that we have before us another reconverted version of Heraclitus by Scythinus; for the cases of Cleanthes, whose Stoic verses are in part little more than paraphrases of Heraclitus, and of 'Epicharmus,' among whose fragments there are some which reproduce the thought of Heraclitus as others do that of Plato, caution us to avoid hasty conclusions. Nevertheless, I incline to think that fr. 78 is in fact a thinly disguised prose rendering of a verse original; for there are at least two other 'fragments' of Heraclitus (80 and 100) whose form suggests a versified original. As it is best to discuss them separately, I will add only that one of them, like fr. 78, is quoted by Origen *Against Celsus*. If my suggestion be approved by scholars, an interesting question arises, to wit, how accurately the versifier, if he was actually trying to reproduce the thought of Heraclitus, as Celsus or his source supposed, succeeded in rendering it. In the case of fr. 78, it is a nice question whether Heraclitus would have said what is here imputed to him. Origen seems to be clearly right in interpreting γνῶμας with σοφία; but Heraclitus, whose doctrine of τὸ σοφόν we considered above in the note on fr. 41, although unsparing in his denunciation of the stupidity of the crowd, clearly believed that he had attained to wisdom. We naturally think of him as declaring with the Hebrew prophet that he alone was left.

We may note that fr. 78 seems to have served as a model for the spurious fragment of Epicharmus, 57, 7, which Diels (V<sup>2</sup> 99, 4) writes thus:

οὐ γὰρ ἄνθρωπος τέχνην τιν' εὗρεν, ὁ δὲ θεὸς τοπᾶν.



In the same way Epicharmus, fr. 64 (V<sup>2</sup> 100, 5 sq.), likewise spurious,

εἰμὶ νεκρός· νεκρὸς δὲ κόπρος, γῆ δ' ἡ κόπρος ἐστίν·  
εἰ δ' ἡ γῆ θεός ἐστ', οὐ νεκρός, ἀλλὰ θεός,

glances at Heraclitus, fr. 96, νέκυες γὰρ κοπρίων ἐκβλητότεροι, and also at the anecdotes relative to the manner of his death, V<sup>2</sup> 54, 29 sq., and to the anecdote about the oven, where also there were gods (V<sup>2</sup> 58, 36 sq.). It seems altogether likely that the case of Heraclitus is in this a close parallel to that of Pythagoras, that myth soon began to weave legends about his name, and that forgeries sprang up which were supported by other forgeries. For the relation of the late Pythagoreans to Heraclitus, see Norden, *Agnostos Theos*, p. 345, n. 1. The examples given above and to be discussed presently make it extremely probable that some of these were written in verse and current as adespota, becoming in time attached to various names, such as Epicharmus. Others went under the name of Heraclitus, and it is probably to them that the Vita in Suidas refers (V<sup>2</sup> 56, 46), ἔγραψε πολλὰ ποιητικῶς.

V<sup>2</sup> 73, 23. Fr. 80, εἰδέναι δὲ χρή τὸν πόλεμον ἔοντα ξυγόν, καὶ δίκην ἔριν, καὶ γινόμενα πάντα κατ' ἔριν καὶ χρεώμενα.

This fragment has been discussed times innumerable, more particularly with reference to the last word, which is conceded to be impossible. If the sentence be regarded as an authentic prose fragment of Heraclitus, we probably cannot do better than accept Schuster's conjecture, καταχρεώμενα for χρεώμενα, and take it as complementary to γινόμενα. Diels, however, has rightly refused to admit into his text any of the numerous substitutes proposed for χρεώμενα. First of all it should be noted that καὶ γινόμενα πάντα κατ' ἔριν does not look so much like an utterance of Heraclitus as like an attempt to summarize details; this impression is confirmed by fr. 8, Arist. Eth. Nic. 1155<sup>b</sup> 4, Ἡράκλειτος τὸ ἀντίξουν συμφέρον καὶ ἐκ τῶν διαφερόντων καλλίστην ἀρμονίαν καὶ πάντα κατ' ἔριν γίνεσθαι, which is itself quite obviously not a verbatim quotation but a summary. Long ago I was struck by the similarity in thought between καὶ δίκην ἔριν, καὶ γινόμενα πάντα κατ' ἔριν and Cleanthes, H. in Iov. 36,

ὁὗς δὲ κυρῆσαι γνώμης, ἥ πίσυνος σὺ δίκης μέτα πάντα κυβερνᾷς,

and in a letter to Professor Diels I proposed instead of χρεώμενα to read χρεῶν μέτα, after Eurip. Herc. F. 20,

εἴθ' Ἥρας ὑπο  
κέντροις δαμασθεῖς εἴτε τοῦ χρεῶν μέτα.

He replied that the anastrophe of μέτα was impossible in prose. This is of course true, as I well knew, assuming that we are dealing with real prose. At that time, having nothing more definite than the vague impression that the diction and movement of certain fragments of Heraclitus were distinctly poetic, and the statement in the Vita of Suidas, which I then interpreted as referring in a general way to poetic diction, I dropped the matter, though I still felt that χρεῶν μέτα was probably the true reading. Recently Dr. Bruno Jordan, Archiv für Gesch. der Philos., 24 (1911), p. 480, has independently made the same suggestion. In view of the probability that in this 'fragment,' as in fr. 78, we have a versified version of Heraclitus reconverted into prose, I regard my emendation as all but certain. I do not think it feasible to recover the verse original throughout, because, as I indicated above, καὶ γινόμενα πάντα κατ' ἔριν appears to be a summarizing formula; but it is easy to pick out parts of the sentence which fall almost without change into iambic verse:

εἰδέναι δὲ χρή  
τὸν πόλεμον ὄντα ξυγόν . . . . .  
. . . . . καὶ δίκην ἔριν  
. . . . . <τοῦ> χρεῶν μέτα.

It must be said that the text of the fragment is not absolutely certain, as the Mss. of Origen *Against Celsus* read εἰ δὲ χρή and δίκην ἐρεῖν; but the emendations adopted by Diels and reproduced above are so obvious that we may with confidence make his text the basis of our study. Regarded in the light of the poetic tags which have just been noted, we have again a close parallel to the prose paraphrase of Scythinus, fr. 2; but I hazard no guess as to the author of the versified version.

V<sup>2</sup> 76, 12. Fr. 100, ὥρας αἱ πάντα φέρουσι.

This fragment is preserved by Plutarch, who again alludes to it. The movement is clearly dactylic, and one may suspect that it formed part of an hexameter, though its brevity forbids dogmatic conclusions. In view of the experiments of Cleanthes it is not improbable that there were versions of certain Heraclitean sayings in heroic verse. It is, of course, possible that this fragment owes its rhythmical or metrical form to chance or to unconscious poetical influences not unnatural



in the early stages of prose when verse was still the prevailing medium of artistic expression. This is perhaps the most probable explanation of the hexameter ending of fr. 5, *θεὸς οὐδ' ἥρως οἰτινὲς εἰσι*, which I noted long ago and find referred to Homeric influence by Norden, *Agnostos Theos*, p. 88, n. 1. Dactylic movement, due to epic models, is much more easily thus accounted for than iambic or trochaic, such as have been noted above in fragments 78 and 80. Of the latter sort there is perhaps another example in fr. 120, quoted by Strabo, *ἡοὺς καὶ ἐσπέρας τέρματα ἢ ἄρκτος καὶ ἀντίον τῆς ἄρκτου οὐρος αἰθρίου Διός*. The general trochaic or iambic rhythm is at once apparent, and the close at least is faultless and strikingly suggestive of a trochaic verse. See infra, p. 714 sq. One may recast it into trochaics quite as easily as Wilamowitz did the second fragment of Scythinus, —

*ἡοὺς [possibly ἔω δέ] χάσπερας  
τέρματ' ἄρκτος κἀντί' ἄρκτου οὐρος αἰθρίου Διός.*

**V<sup>2</sup> 77, 11.** Fr. 108, *ὁκόσων λόγους ἤκουσα, οὐδεὶς ἀφικνεῖται ἐς τοῦτο, ὥστε γινώσκειν ὅτι σοφὸν ἐστὶ πάντων κεχωρισμένον*.

This fragment has been much discussed; cp. Schuster, pp. 42, 44; Zeller, I. 629, n. 1. Gomperz proposed to bracket *ὅτι σοφὸν κτλ.* as an interpolation. All those who retain the words regard them as an object clause, whatever interpretation they may put upon it. Diels identifies (τὸ) *σοφόν* with God, and understands the fragment as declaring the divine transcendence. This view has naturally provoked vigorous protests; for it is incompatible with all that we otherwise know of the thought of Heraclitus. I think *λόγους* is here used as Heraclitus uses *λόγος* of his own philosophic message or gospel: it refers to the Weltanschauungen of the great teachers and philosophers; for *ἤκουσα* does not necessarily refer to actual hearing of the person who sets forth his views, but includes the reading (by himself or by a slave) of written records. The pregnant force of *γινώσκειν* was sufficiently explained above in the discussion of fr. 41. Heraclitus, then, says: "Of all those whose message regarding the nature of things it has been my fortune to learn about, not one has attained to the point of true knowledge." So much seems to be clear from a survey of the conception of knowledge which he is continually proclaiming. But, once we seize the import of his use of *γινώσκειν*, it is equally clear that *ὅτι* is not "that"; it is causal, and the obvious conclusion to his sentence follows: "for wisdom is far removed from all" ("men" or "of them"). One may illustrate this use of *κεχωρισμένον* by a pas-

sage from Cleanthes quoted by Sext. Empir. 9. 90, *ὥστε οὐ τέλειον ζῶον ὁ ἄνθρωπος, ἀτελὲς δὲ καὶ πολὺ κεχωρισμένον τοῦ τελείου*. The questionable fragment of Philolaus, quoted by Diels, and the quotation from Philostratus ap. Euseb. P. E. 4. 13, *ἐνὶ τε ὄντι καὶ κεχωρισμένῳ πάντων*, made by Norden, *Agnostos Theos*, 39, n. 3, afford but weak support for so unlikely a theory as that of Diels. In printing the fragment, I should place a colon between *γινώσκειν* and *ὅτι*. The sentence thus furnishes a new illustration of the difficulty, noted by Aristotle, of phrasing Heraclitus. Diels mentions, but does not adopt, my interpretation in V<sup>3</sup>.

**V<sup>2</sup> 77, 19.** Fr. 112, *σωφρονεῖν ἀρετὴ μεγίστη, καὶ σοφίη ἀληθὲς λέγειν καὶ ποιεῖν κατὰ φύσιν ἐπαύοντας*.

The Mss. here, as in fr. 116, show *σωφρονεῖν*. Diels here substitutes *τὸ φρονεῖν*, there *φρονεῖν*, in order to adapt the diction to that of Heraclitus. He renders: "Das Denken ist der grösste Vorzug, und die Weisheit besteht darin, die Wahrheit zu sagen und nach der Natur zu handeln, auf sie hinhörend." Besides changing *σωφρονεῖν* to *τὸ φρονεῖν*, he gives a forced rendering of *ἀρετὴ* and *ἐπαύοντας* which serves to conceal the obvious Stoic character of the saying. Again, there is no other instance of *σοφίη* in the supposedly genuine fragments of Heraclitus, who seems to have used (τὸ) *σοφόν* instead: it does recur in fr. 129, which Diels reckons doubtful or spurious but others accept as genuine. Yet, granting that it is genuine, *σοφίη* there means something very different: it is, like *πολυμαθείη* and *κακοτεχνίη*, a term of reproach. One who reads the sentence without bias will readily admit that *ἀρετὴ* means an ethical virtue. As for *ἀληθὲς λέγειν*, one may perhaps defend it by citing the denunciation of the *ψευδῶν τέκτονας καὶ μάρτυρας* in fr. 28; but it is doubtful whether so obviously an ethical virtue would have counted as a mark of *σοφίη* in the days of Heraclitus. In opposition to this it may be said that 'Αλήθεια was the ideal of the Greek philosophers from the beginning. True; but it was objective Truth which they sought, and not the virtue of truthfulness. The juxtaposition of *ἀληθὲς λέγειν* and *ποιεῖν κατὰ φύσιν* does not suggest a reference to abstract or objective truth. Finally, *ποιεῖν κατὰ φύσιν ἐπαύοντας* bears all the marks of Stoic doctrine; for it is hardly defensible to render *ἐπαύοντας* with "auf sie hinhörend." The word has here, as in fr. 117, *οὐκ ἐπαύων ὅκη βαίνει*, the sense which it regularly bears in Plato, to wit, "knowing"; cp. Xen. Mem. 1. 1. 9, *δαιμονῶν δὲ καὶ τοὺς μαντευομένους ἃ τοῖς ἀνθρώποις οἱ θεοὶ μαθοῦσι διακρίνειν*. The words then clearly mean "to act in accordance with



nature consciously and with full knowledge." This thought is, however, in substance and in form entirely Stoic, corresponding in the ethical sphere to the injunction to submit willingly to Fate, in the religious sphere, as expressed in Cleanthes's lines to Fate. One may, of course, discover the germs of this view in genuine fragments of Heraclitus; but Diels's alterations in the text and his interpretation do not meet the reasonable objections long since urged by others to the genuineness of this fragment.

V<sup>2</sup> 78, 8. Fr. 116, ἀνθρώποισι πᾶσι μέτεστι γινώσκειν ἑωυτοὺς καὶ σωφρονεῖν.

This fragment, like the preceding, is derived from Stobaeus, and like it, too, has been by many regarded as spurious. As I have already stated, Diels writes φρονεῖν for σωφρονεῖν, in order to meet an obvious criticism. This procedure would be justifiable, however, only if the passage as a whole created a presumption in favor of Heraclitean authorship, which is supported solely by the lemma of Stobaeus. In fact all indications point to the period after Socrates. Whoever attributed the saying to Heraclitus doubtless did so in view of fr. 101, ἐδίζησάμην ἑμεωυτόν, but the interpretation of the Delphic γινῶθι σαυτόν as an injunction to recognize one's limitations and to occupy oneself with that which lies within one's proper scope and power,—this is, so far as we know, Socratic: he who would claim it for Heraclitus must assume the burden of proof. But no unbiased reader of our fragment will doubt that γινώσκειν ἑωυτοὺς καὶ σωφρονεῖν was intended to express that precise thought. I cannot justify the changing of σωφρονεῖν to φρονεῖν, and cannot accept the fragment as genuine. Bywater was clearly right in marking both 112 and 116 as doubtful. Since they come to us from Stobaeus, who quotes them under widely different heads, it is plain that their assignment to Socrates is not due to a mere mistake in the lemmata of his text, but the error must be charged to his sources.

V<sup>2</sup> 78, 16. Fr. 120, ἡοὺς καὶ ἐσπέρας τέρματα ἢ ἄρκτος καὶ ἀντίον τῆς ἄρκτου οὐρος αἰθρίου Διός.

In V<sup>3</sup> Diels briefly notes my interpretation of οὐρος αἰθρίου Διός as "wind of heaven," which was proposed in my review of his *Heraclitus von Ephesos*<sup>2</sup>, in *Class. Philol.*, 5. p. 247; but he appears still to prefer his own suggestion that Heraclitus referred to Mt. Olympus. As I regard my proposal as almost certainly right, I offer here a few addi-

tional observations to supplement my former statement, which exigencies of space then compelled me to omit. For the meaning of οὐρος, "wind," I would refer to Schmidt's *Synonymik*. See also Bonitz, *Index Aristotelicus*, s. v. ἄρκτος. It was common to say καὶ πρὸς ἄρκτον καὶ πρὸς νότον. The phrases employed by Herodotus in speaking of the cardinal points are especially interesting; I have made a complete list of them, and they seem to me to be decisive. I will refer, however, to but a few by way of illustration: 1. 148, πρὸς ἄρκτον τετραμμένος . . . πρὸς ζέφυρον ἄνεμον; 2. 8, φέρον ἀπ' ἄρκτου πρὸς μεσεμβρίας τε καὶ νότον; 3. 102, πρὸς ἄρκτου τε καὶ βορέου ἄνεμον. Cp. Hesiod, *Theog.* 378–82.

Though I do not accept the suggestion of Diels that the οὐρος Διός is Mt. Olympus, I will refer to a passage which might possibly be used to support it, to wit, Hippocr. *Περὶ ἐβδομάδων*, 48 (9. 462 L.), *Definitio autem superiorum partium et inferiorum corporis umbilicus*. It would be interesting to know the Greek text: perhaps Helmreich or some other ransacker of medical manuscripts may yet recover it! It occurs in a part of the treatise much discussed of late; see Roseher, *Über Alter, Ursprung und Bedeutung der hippokr. Schrift von der Siebenzahl*, p. 37, n. 67, who of course, in relating this to his "Weltkarte," refers to the ὀμφαλὸς γῆς or θαλάττης, and believes that the writer had in mind (not Delphi, but) Delos or Teos. Mt. Olympus might well serve as a landmark to divide the "upper" or northern parts of the earth from the "lower" or southern; but it does not seem so suitable for a zero meridian. I doubt, moreover, whether Heraclitus had any "Greenwich" in mind: what he seems to have meant is merely this, that "east" and "west" are relative terms and are delimited by a north and south line drawn through any point that may be in question. Various special meridians, useful to the geographer and mariner, were recognized at a comparatively early date, as may be seen from Herodotus; but a zero meridian, so far as I know, was not thought of before the time of the Alexandrian geographers. For the suggestion of a possible verse original for the fragment, see above on fr. 100. This would readily account for the use of οὐρος in the sense of wind.

V<sup>2</sup> 80, 10. Fr. 128, δαιμόνων ἀγάλμασιν εὐχονται οὐκ ἀκούουσιν, ὥσπερ ἀκούειν, οὐκ ἀποδιδούσιν, ὥσπερ οὐκ ἀπαιτοῦν.

In regard to the text of this spurious fragment I agree with Diels, except that I would set a colon after ἀκούειν; from his interpretation I dissent, because it seems to me obviously at fault. In some



unaccountable way he appears to have overlooked my note in *Class. Philol.* 5. p. 247, for he renders the text thus: "Sie beten zu den Götterbildern, die nicht hören, als ob sie Gehör hatten, die nichts zurückgeben, wie sie ja auch nichts fordern könnten." The saying is a close parallel to fr. 127, likewise spurious, in that it charges men with inconsistency in their dealings with the gods. Hence οὐκ ἀποδιδόσιν (= ἀποδιδόασιν; not the partic.!) answers to εὐχονται as ὥσπερ οὐκ ἀπαιτοῖεν answers to ὥσπερ ἀκούοιεν, and the meaning, as I said in my former note, is: "They make vows to the images of the gods, that hear not, as if they heard; they pay not their vows, as if they (the gods) required it not." Everyone can supply the necessary classical examples for εὐχονται, ἀποδιδόσιν, and ἀπαιτοῖεν. I will quote one from the LXX., Deuter. 23. 21, ἐὰν δὲ εὐχῇ εὐχὴν κυρίῳ τῷ θεῷ σου, οὐ χρονιεύς ἀποδοῦναι αὐτήν, ὅτι ἐκζητῶν ἐκζητήσει κύριος ὁ θεός σου, καὶ ἔσται ἐν σοὶ ἁμαρτία.

[Hippocrates.]

V<sup>2</sup> 81, 36—82, 16. For this passage, see my *Antecedents of Greek Corpuscular Theories*, Harvard Studies in Class. Philol., 22 (1911), p. 148 sq. It is to this article, and not to "Class. Philol. 22. 158," that Diels should have referred V<sup>3</sup> 106, 16, note.

c. 13. Epicharmus.

V<sup>2</sup> 91, 23. Fr. 4. 6,

τὸ δὲ σοφὸν ἂ φύσις τόδ' οἶδεν ὥς ἔχει  
μόνα· πεπαίδευται γὰρ αὐταύτας ὕπο.

Diels renders, "Doch wie sich's mit dieser Weisheit verhält, das weiss die Natur allein. Denn sie hat's ganz von selbst gelernt." It is, perhaps, a matter of no great consequence, but I believe his translation rests on a misconception of τὸ σοφὸν τόδε and ὥς ἔχει. As to the former, it has little in common with (τὸ) σοφόν of Heraclitus, but, like the familiar phrase οὐδὲν ποικίλον οὐδὲ σοφόν, denotes something recondite or cunningly devised. In regard to ὥς ἔχει, I remarked above, in my note on Heraclitus, fr. 1, that it here refers to the process of becoming, "how it comes about." The words of the fragment mean, "Nature alone knows the secret of this cunning device, or the way in which this mysterious result is brought about." This use of ὥς ἔχει and related phrases appears to have escaped many scholars. Possibly it baffled the copyists also in certain instances. Thus Xen. Mem. 1. 1. 11, οὐδὲ γὰρ περὶ τῆς τῶν πάντων φύσεως, ἥπερ τῶν ἄλλων

οἱ πλείστοι, διελέγετο σκοπῶν, ὅπως ὁ καλούμενος ὑπὸ τῶν σοφιστῶν κόσμος ἔχει, καὶ τίσιν ἀνάγκαις ἕκαστα γίνεται τῶν οὐρανίων κτλ. Here the Mss. are divided between ἔχει and ἔφν, and the editors find it difficult to decide. I believe that ἔχει, which has the better credentials, is the true reading, though one may question whether the unfamiliar force of ἔχει or the similarity of sound led to the substitution of ἔφν. As I pointed out in my study *Περὶ Φύσεως*, the same duplicity as appears in the force of ὥς ἔχει occurs also in the use of φύσις, which predominantly signifies that which a thing is, but, pursuant to a constant habit of the human mind, is most frequently and naturally defined by recounting the story of its birth.

c. 18. Parmenides.

V<sup>2</sup> 105, 34. Diog. L. 9. 22, γένεσιν ἀνθρώπων ἐξ ἡλίου πρῶτον γενέσθαι· αὐτὸν δὲ ὑπάρχειν τὸ θερμὸν καὶ τὸ ψυχρόν, ἐξ ὧν τὰ πάντα συνεστάναι.

Various proposals have been made for the emendation of ἡλίου, of which ἰλῦος is the most probable. It is obvious, however, that ἐξ ἡλίου, or whatever we may substitute for it, was not intended to denote the elemental constituents of man, since they are expressly mentioned later in the sentence. If the writer had in mind merely the source of the force which led to the origin of man, ἐξ ἡλίου, however singular, may be allowed to stand. But Diels is quite right in regarding αὐτὸν as corrupt. The language of Aristotle and his commentators suggests the obvious correction, αὐτοῖς δ' ἐνυπάρχειν, referring to the στοιχεῖα ἐνυπάρχοντα.

V<sup>2</sup> 115, 10. Fr. 1, 28,

χρεῶ δέ σε πάντα πυθέσθαι  
ἡμὲν Ἀληθείης εὐκνκλέος ἀτρεμές ἦτορ  
ἡδὲ βροτῶν δόξας, ταῖς οὐκ ἐν πίστις ἀληθῆς.

Something depends upon the precise meaning of πίστις ἀληθῆς; for it must to a considerable extent determine our conception of the attitude of Parmenides toward the βροτῶν δόξαι, which seem to have occupied his thought in much the larger part of his philosophical poem. The phrase recurs, fr. 8, 26 sq.,

αὐτὰρ ἀκίνητον μεγάλων ἐν πείρασι δεσμῶν  
ἔστιν ἄναρχον ἄπαυστον, ἐπεὶ γένεσις καὶ ὄλεθρος  
τῇλε μάλ' ἐπλάχθησαν, ἀπῶσε δὲ πίστις ἀληθῆς.



Diels renders it with "verlässliche Wahrheit" and "wahre Überzeugung"; Burnet and Nestle do not vary the phrase but give "true belief" and "des Wahren Gewissheit" in both cases. Two other passages of the poem ought to be compared, to wit, fr. 8, 12,

οὐδέ ποτ' ἐκ μὴ ἔοντος ἐφήσει πίστιος ἰσχύς  
γίγνεσθαι τι παρ' αὐτό,

and fr. 8, 17,

οὐ γὰρ ἀληθής  
ἔστιν ὁδός.

In the passage last mentioned ἀληθής ὁδός is clearly equivalent to Ἀληθείης ὁδός, as in fr. 4, 4 we have Πειθοῦς ἐστι κέλευθος. So in Sophocl. O. R. 500,

ἀνδρῶν δ' ὅτι μάντις πλεον ἢ γῶ φέρεται,  
κρίσις οὐκ ἔστιν ἀληθής,

where the meaning obviously is that "there is no proving the truth of the contention that a seer outstrips me." This use of κρίσις calls to mind the fact that Parmenides employs the same word, fr. 8, 15,

ἢ δὲ κρίσις περὶ τούτων ἐν τῷδ' ἔστιν·  
ἔστιν ἢ οὐκ ἔστιν· κέκριται δ' οὖν, ὥσπερ ἀνάγκη,  
τὴν μὲν ἔαν ἀνόητον ἀνώνυμον (οὐ γὰρ ἀληθής  
ἔστιν ὁδός), τὴν δ' ὥστε πέλειν καὶ ἐτήτυμον εἶναι.

Here the context appears to me to furnish the clue to the meaning of πίστις; for Parmenides clearly has in mind an action at law in which the issue is sharply drawn and judgment is rendered. So fr. 8, 27 sq. the πίστις ἀληθής sends γένεσις and ὄλεθρος into banishment. The juxtaposition of κρίσις and πίστις shows that πίστις means such evidence or proof as may be adduced in court, a meaning which the word quite regularly bore in legal argumentation. Aristotle, the logician, feeling that forensic oratory employed the enthymeme rather than the syllogism, and that in consequence its deductions were less cogent, continued to use πίστις for rhetorical proof in contradistinction to ἀπόδειξις, the stricter proof of logic or science. Thus πίστις is for him πειθοῦς κέλευθος, the method proper to a procedure which, like the plea of the rhetor, has for its object the establishment of the εἰκός. In much the same way the σήματα of Parmenides, fr. 8, 2, are the σημεῖα of forensic argumentation, which Aristotle in like manner and for the same reason distinguished from the more certain

τεκμήρια. Thus we see that the dialectic of Parmenides, which eventuated in the Aristotelian logic, employed the forms and terminology of forensic rhetoric, though with an evident effort to reduce argumentation to the exactitude of demonstration; and πίστις ἀληθής is just this demonstration of truth. When, therefore, Parmenides objects to the βροτῶν δόξαι, it is because they do not carry the force of logical or dialectic evidence, or that such evidence is against them.

V<sup>2</sup> 115, 19. Fr. 1, 37,

μόνος δ' ἐπὶ θυμός ὁδοῖο  
λείπεται.

V<sup>2</sup> 118, 38. Fr. 8, 1,

μόνος δ' ἐπὶ μῦθος ὁδοῖο  
λείπεται, ὥς ἔστιν.

It appears to be generally conceded that θυμός and μῦθος are corruptions of one and the same word; θυμός, at any rate, is unintelligible. Of the numerous emendations proposed Platt's οἶμος is doubtless the best, though Diels seems to prefer ῥυμός; but ῥυμός does not so well explain the corruption as οἶμος. I am about to propose a correction, which seems to me all but certain. The stress onμόνος and λείπεται suggests that we are reduced to a way that barely remains. Similarly Plato, Symp. 184 B, μία δὲ λείπεται τῷ ἡμετέρῳ νόμῳ ὁδός, reinforced by 184 E, μοναχοῦ ἐνταῦθα . . . ἄλλοι δὲ οὐδαμοῦ, like the Aristotelian dictum, τὸ ἀμαρτάνειν πολλαχῶς ἔστι, τὸ κατορθοῦν μοναχῶς, calls to mind the Gospel saying, στενὴ ἡ πύλη καὶ τεθλιμμένη ἡ ὁδός ἡ ἀπάγουσα εἰς τὴν ζωὴν. I take it for granted that Parmenides regarded and characterized the way of Truth as a strait and narrow path, just as, fr. 6, 2 sq., he obviously thinks of the way of Error as broad, since "mortals, knowing nought, stagger (πλάττονται) along it with unsteady minds." I can think of nothing so suitable for his purpose, or so likely to give rise to the corruptions θυμός and μῦθος, as the word ἰσθμός. Plato, Tim. 69 E, uses it of the human neck, Emped. fr. 100, 19, of the narrow orifice of the clepsydra, and Hom., σ 300, uses ἰσθμον of a necklace. The Homeric scholiast says that the throat is called ἰσθμός, ἀπὸ τοῦ εἰσιέναι τὴν τροφὴν δι' αὐτοῦ. The corresponding use of αὐχὴν (Herod. 7. 223) and of fauces in Latin in speaking of a narrow defile or 'isthmus' is sufficiently well known. Now it happens that in Emped. fr. 100, 19, ἰσθμός has become corrupted in a part of the MS. tradition, and in Sophocl., fr. 145,



ἀ δὲ μνάστις  
θνατοῖς εὐποτμότατα μελέων  
ἀνέχουσα βίου βραχὺν ἰσθμόν.

where ἰσθμός refers to "the narrow span of life," modern scholars have ignorantly sought to substitute something else. Nauck here proposed οἶμον, as Platt does for Parmenides. But the MS. reading is confirmed by Aelian, V. H. 2. 41, ὅτε αὐτῷ τὸ ἐκ Βουτοῦς μαντεῖον ἀφίκετο προλέγον τὴν τοῦ βίου στενοχωρίαν, and by Cicero's use of *angustiae temporis*.

I should therefore read ἰσθμός ὁδοῖο in both fragments. Lest anyone be disturbed by the hiatus between ἔτι and ἰσθμός, I remark that we find another instance of it in fr. 4, 6,

τὴν δὴ τοι φράζω παναπενθέα ἔμμεν ἀταρπόν,

in each case in the bucolic diaeresis. Diels, *Parmenides Lehrgedicht*, p. 67, in his note on the latter passage, well says: "Der Hiat in der bukolischen Diärese nicht anzutasten!" Indeed, the collision of words ending and beginning with the same vowel was even regarded by ancient grammarians as peculiarly justifiable. See Christ, *Metrik der Griechen und Römer*<sup>2</sup>, p. 41, § 55, and the remarks of ancient grammarians on Hom. Od. λ 595, Verg. Georg. 1, 281, and Hor. C. 1. 28, 24. Herwerden, *Lexicon Gr. Suppletorium*, p. 400, suggests that ἰσθμός may have had the digamma, referring to Pindar, Isth. 1. 10, 32 and Bacchyl. 2, 7 Blass., but continues, "Sed fortasse hiatus nominum propriorum licentiae tribuendus. Cf. O. Schroeder, *Prol. Pind.* II. p. 14 et p. 17. Nec sane digamma habere potuit, si descendit a verbo ἰέναι." I do not believe it had the digamma.

V<sup>2</sup> 117, 7. Fr. 5, τὸ γὰρ αὐτὸ νοεῖν ἐστίν τε καὶ εἶναι.

The construction of this sentence has occasioned difficulties. It is obvious, however, that it is identical in meaning with fr. 8, 34, to be discussed below. I think we have here a case of brachylogy, and that we must supply νοεῖν before εἶναι from the preceding νοεῖν. "For it is one and the same thing to think and to think that it is." See the examples cited by Kühner-Gerth, II. p. 565, § 597, h. Burnet, *Early Greek Philosophy*<sup>2</sup>, p. 198, notes 1 and 3, propounds syntactical doctrines and puzzles which one ought in kindness to ignore. Any good grammar will supply abundant examples of the substantive use of the infinitive, with or without the article, earlier than the date of Parmenides. For Greek lyric poets, see Smyth, *Greek Melic Poets*,

note on Alcman, fr. XII. For the articular infinitive in general, consult the articles of Professor Gildersleeve in *Amer. Journ. of Philol.*

V<sup>2</sup> 117, 14. Fr. 6, 1,

χρὴ τὸ λέγειν τε νοεῖν τ' ἐὼν ἔμμεναι· ἔστι γὰρ εἶναι,  
μηδὲν δ' οὐκ ἔστιν.

The view of Diels and Burnet, which takes ἔστι and ἔστιν as equivalent to ἔξεστι, appears to me to be unsatisfactory; for the sentence thus becomes weak and out of character. Parmenides says: "For existence exists, and nought is not." The absence of the article with εἶναι and μηδὲν makes no difference. In regard to the first sentence, we must, perhaps, acquiesce in the view of Diels, who regards τὸ as the epic pronoun, and renders: "*Dies ist nötig zu sagen und zu denken, das nur das Seiende existiert*"; but this use of τὸ would be unique in Parmenides, in whom we expect the articular infinitive. It is possible that he meant "*Speech and thought must be real*"; for, though we do not otherwise find the recognition of the corporeal existence of thought and speech clearly expressed before the Stoics and Epicureans, it is by no means certain that Parmenides would not be called upon to defend his 'materialistic' doctrines by asserting the corporeality of thought and speech, since he expressly concerned himself with predication, fr. 8, 35 sq.

V<sup>2</sup> 117, 21. Fr. 6, 8,

οἷς τὸ πέλειν τε καὶ οὐκ εἶναι ταῦτόν νερόμισται  
κοῦ ταῦτόν.

Burnet, *Early Greek Philosophy*<sup>2</sup>, p. 198, n. 3, tortures this passage in order to eliminate the articular infinitives and the solecism τὸ . . . οὐκ εἶναι; but his interpretation is impossible, and, as we have seen, his reluctance to admit the articular infinitive is indefensible. As to τὸ . . . οὐκ εἶναι, others before him have found in it a rock of offence; but the responsibility rests with Parmenides. If he could say, οὕτως ἢ πάμπαν πελέναι χρεών ἐστι ἢ οὐχί (fr. 8, 11) alongside ἢ δ' ὡς οὐκ ἔστιν τε καὶ ὡς χρεών ἐστι μὴ εἶναι (fr. 4, 5) it is difficult to see why he should not have said τὸ οὐκ εἶναι instead of τὸ μὴ εἶναι.

V<sup>2</sup> 119, 6. Fr. 8, 9,

τί δ' ἄν μιν καὶ χρεός ᾤρσεν  
ὑστερον ἢ πρόσθεν, τοῦ μηδενὸς ἀρξάμενον, φῶν.



Diels renders ὕστερον ἢ πρόσθεν with "früher oder später"; Burnet, correctly I believe, with "later rather than sooner"; for I regard the phrase as a sort of *comparatio compendiaria*. The question was repeated and amplified by later philosophers; cp. Lucret. 5, 165-180; Cic. N. D. 1. 9. 21; V<sup>2</sup> 305, 16 sq.; Diels, *Dox. Gr.*, p. 301, 2, καὶ οὔτε κατὰ τὸ πρῶτον μακάριός ἐστιν ὁ θεός, τὸ γὰρ ἐλλείπον εἰς εὐδαιμονίαν οὐ μακάριον, οὔτε κατὰ τὸ δεύτερον· μηδὲν γὰρ ἐλλείπων κενᾶις ἐμελλεν ἐπιχειρεῖν πράξεσιν. In the last passage I think we should clearly read κενᾶις for κενᾶις; cp. Lucret. 5, 168 sq.,

Quidve novi potuit tanto post ante quietos  
inlicere ut cuperent vitam mutare priorem?  
nam gaudere novis rebus debere videtur  
cui veteres obsunt; sed cui nil accidit aegri  
tempore in anteacto, cum pulchre degeret aevum,  
quid potuit novitatis amorem accendere tali?

I may add that Parmenides, fr. 8, 7, πῇ πόθεν αὐξήθεν, and 8, 32 sq.,

οὐνεκεν οὐκ ἀτελεύτητον τὸ ἐὼν θέμις εἶναι·  
ἐστι γὰρ οὐκ ἐπιδενές, ἐὼν δ' ἂν παντὸς ἐδεῖτο,

is expanded by Plato, Tim. 32 C-34 A, with an obvious addition 33 A, which is apparently drawn from the Atomists. Cp. V<sup>2</sup> 343, 4 sq., and my *Antecedents of Greek Corpuscular Theories*, Harvard Studies in Class. Philol., 22 (1910), p. 139. See also the discussion above (p. 693 sq.) of V<sup>2</sup> 34, 18.

V<sup>2</sup> 120, 13. Fr. 8, 34, ταὐτὸν δ' ἐστὶ νοεῖν τε καὶ οὐνεκὲν ἐστὶ νόημα.

So far as I am aware, all interpreters of Parmenides have taken οὐνεκεν in the sense of "that for the sake of which." This is, of course, quite possible; but we thus obtain no satisfactory sense unless we are to adopt the Neo-Platonic conceptions which obviously suggested the accepted rendering. Probably no student of ancient philosophy who has learned the rudiments of historical interpretation would go so far afield. Only the natural obsession that we must take our cue from the ancients, whose incapacity in this regard should no longer be a secret, can account for the failure of some one to make the obvious suggestion that we take οὐνεκεν as ὅτι, and read ἐστι; for it seems clear that Parmenides meant, "Thinking and the thought that the object of thought exists, are one and the same." Kühner-Gerth, II. p. 356, and the lexicons give the examples for this use of οὐνεκα; for

the dependence of a substantive clause on a verbal substantive, Stahl, *Krit.-histor. Syntax des gr. Verbuns der klass. Zeit*, p. 546, § 2, gives abundant examples, to which a careful reader will be able to add largely in a week. The parallelism of infinitive and substantive is no closer than Mimnermus, 2, 10,

αὐτίκα τεθνάμεναι βέλτιον ἢ βίοςτος.

If the inverted order of words should cause any one to hesitate, let him recall Xenophanes, fr. 34, 2,

καὶ ἄσσα λέγω περὶ πάντων,

and Sophocl. O. R. 500 sq., quoted above, p. 718, on fr. 1, 28 sq. I regard this construction as of especial importance, because the frank equivalence of the infinitive with the substantive would seem to render for all time impossible the strange acrobatic feats performed by Burnet in his endeavor to eliminate the substantival infinitive, with or without the article, from the text of Parmenides.

#### c. 19. Zeno.

V<sup>2</sup> 133, 8. Fr. 1, καὶ περὶ τοῦ προὔχοντος ὁ αὐτὸς λόγος. καὶ γὰρ ἐκεῖνο ἔξει μέγεθος καὶ προέξει αὐτοῦ τι. ὅμοιον δὲ τοῦτο ἅπαξ τε εἰπεῖν καὶ αἰεὶ λέγειν. οὐδὲν γὰρ αὐτοῦ τοιοῦτον ἔσχατον ἔσται οὔτε ἕτερον πρὸς ἕτερον οὐκ ἔσται. οὕτως εἰ πολλά ἐστίν, ἀνάγκη αὐτὰ μικρά τε εἶναι καὶ μεγάλα· μικρά μὲν ὥστε μὴ ἔχειν μέγεθος, μεγάλα δὲ ὥστε ἄπειρα εἶναι.

The question discussed in the portion of the fragment here reproduced concerns the second alternative, μεγάλα δὲ ὥστε ἄπειρα εἶναι. There is some difference of opinion among scholars regarding the precise conception of τὸ προὔχον. For some years I have been accustomed to think of the προὔχον ἔσχατον of Zeno as the *extremum quodque cacumen* of Lucretius 1, 599; or, more exactly, I have held and still hold that the Epicurean doctrine of the *partes minimae*, of which the definition of the *extremum cacumen* is a part, owed its origin in part to this argument of Zeno's. The discussion of the *partes minimae* by Giussani had never satisfied me; the view of Pascal, *Studi Critici sul Poema di Lucrezio* (1903), p. 49 sq., seemed to me essentially sound (see Amer. Journ. of Philol., 24, p. 332). He drew attention to Aristotle's arguments (De Anim. 409<sup>a</sup> 13 sq., De Gen. et Corr. 326<sup>b</sup> 1 sq., Phys. 240<sup>b</sup> 8 sq.) to prove that the ἀμερές cannot have



motion, or at most can have motion *κατὰ συμβεβηκός* only, which would be fatal to the older Atomism. Pascal himself did not see that Aristotle (and MXG. 977<sup>b</sup> 11 sq.) derived his arguments from Plato, Parm. 138 BC. With these we must clearly associate the questions touching the rotation of a circle or a sphere, Arist. Phys. 240<sup>a</sup> 29 sq., 265<sup>b</sup> 7; Simpl. Phys. 1022; [Arist.] Qu. Mech. c. 1; Plotin. Ennead. 2. 2. 1. But Plato clearly had in mind positions taken by the younger Eleatics, which he was developing. What these were in detail I am unable to say; but the argument of Zeno which we are considering seems to me to present the same problem from another angle; if the criticisms of Plato and Aristotle, applied to the atom, as an *ἀμερές*, rendered motion, which the Atomists regarded as inherent in it, apparently impossible, the criticism of Zeno made it necessary that there should be a limit to the number and the divisibility of the parts of which a revised atomism might concede that it was composed. In fr. 1, therefore, I regard *αὐτοῦ* in *προέξει αὐτοῦ τι* as a partitive genitive, and accept the emendation of Gomperz, *ὥστε ἕτερον πρὸ ἑτέρου* for *οὔτε ἕτερον πρὸς ἕτερον*. As I conceive the matter, Zeno does not think of a *cacumen* as being added; but, since every extended part is susceptible of division, that which we regard as the *προὔχον* must always have an outer and an inner half, and so by the division *ad infinitum* of the *προὔχον* itself there is crowded between it and the next inward 'unit' an infinitude of parts which, from Zeno's point of view, must in effect advance the *προὔχον* or *cacumen* outward *ad infinitum*. Consequently things become *μεγάλα ὥστε ἄπειρα εἶναι*.

#### c. 20. Melissus.

V<sup>2</sup> 145, 10. Fr. 7. 3, ἀλλ' οὐδὲ μετακοσμηθῆναι ἀνυστόν· ὁ γὰρ κόσμος ὁ πρόσθεν ἔων οὐκ ἀπόλλυται οὔτε ὁ μὴ ἔων γίνεται. ὅτε δὲ μήτε προσγίνεται μηδὲν μήτε ἀπόλλυται μήτε ἑτεροιοῦται, πῶς ἂν μετακοσμηθὲν τῶν ἐόντων εἴη; εἰ μὲν γὰρ τι ἐγένετο ἑτερόλον, ἤδη ἂν καὶ μετακοσμηθείη.

A careful reading of this passage will convince any scholar that there is something wrong with it. The difficulty, however, lies entirely in the clause *πῶς . . . εἴη*, where the MSS. read *μετακοσμηθέντων ἐόντων τι ἦ*. Mullach and Ritter-Preller present the same text as Diels, except that they read *τι εἴη*. Diels renders the clause thus: "wie sollte es nach der Umgestaltung noch zu dem Seienden zählen?" Burnet, apparently accepting the text of Mullach and Ritter-Preller,

translates "how can any real thing have had its order changed?" I do not believe this rendering, which agrees with that of Mullach, is possible, for I know of no such periphrastic form as *μετακοσμηθὲν εἴη* (*ἀπαρνηθεῖς*, Plato, Soph. 217 C, is aor. pass. in form only); that of Diels, on the other hand, though clearly necessary if one adopts his text, does not yield the thought required in the context. I incline to think that *τι* and *ἦ* are marginal corrections which have been misread and misplaced, and that we should read *πῶς ἂν μετακοσμηθείη τι τῶν ἐόντων*; "How should anything real suffer change of order?"

V<sup>2</sup> 149, 1. Fr. 9, εἰ μὲν οὖν εἴη, δεῖ αὐτὸ ἐν εἶναι· ἐν δὲ ὄν αὐτὸ σῶμα μὴ ἔχειν. εἰ δὲ ἔχοι πάχος, ἔχοι ἂν μόρια, καὶ οὐκέτι ἐν εἴη.

Although Simplicius twice so quotes Melissus, and we cannot therefore doubt that his text so read, I cannot believe that Melissus wrote *σῶμα μὴ ἔχειν*. That the Neo-Platonists understood him as holding that the existent is incorporeal is of course well known, but is insufficient warrant for attributing the doctrine to him. Zeller and Burnet seek to obviate the difficulty by referring the fragment, not to the Eleatic One, but to the Pythagorean Unit. Against this view there are two objections which appear to me to be fatal to it: first, we should have to suppose that Simplicius, who read this passage in its context, did not grasp its import, which must have been fairly clear; second, even if Simplicius should have erred in this respect, the argument of Melissus must have been applicable to the Eleatic One, and so Simplicius would be substantially right in quoting the words in order to prove that the Eleatic One was incorporeal. This very conception of Eleatic doctrine, however, would sufficiently account for a corruption of the text, such as reading *ἔχειν* for *εἶναι*. That is what I conceive to have occurred. Melissus, understanding *σῶμα* as an *ἄθροισμα* of parts which, because divisible *ad infinitum*, must be tridimensional or "have thickness," says that a true Unit (whether Eleatic or Pythagorean) cannot be conceived as a *σῶμα* or *ἄθροισμα*. See Amer. Journ. of Philol., Vol. 28, p. 79. At the beginning of the same clause the MS. tradition clearly points to the reading *ἐν δ' ὄν* rather than *ἐν δὲ ὄν*. This correction, which I had noted several years ago, has now been made by Diels in V<sup>3</sup>.

#### c. 21. Empedocles.

V<sup>2</sup> 203, 13 sq. Arist. De Anima 1. 2. 404<sup>b</sup> 8 sq., asserts that Empedocles regarded the soul (*ψυχή*) as compounded of all the elements,



and quotes fr. 109 to prove it. So far as I can recall, all scholars have been content to accept this deduction of Aristotle, although the words quoted offer not the slightest confirmation of it and the doctrine thus ascribed to Empedocles is diametrically opposed to his conception of *ψυχή* in matters of religion. This conflict has been often noted, but no one seems to have seen that the solution of the difficulty lies in the simple fact that Empedocles did not connect these functions with the *ψυχή*, which he, like many other early Greeks, thought of as the entity only which escapes from man at the moment of death and survives the body. Fr. 110, 10,

πάντα γὰρ ἴσθι φρόνησιν ἔχειν καὶ νόματος αἴσαν,

shows what language Empedocles used; everything has *φρόνησις* and *νόημα*, but not *ψυχή*. See my remarks in Amer. Journ. of Philol., 33, p. 94 sq., and Journ. of Philos., Psychol. and Scient. Methods, 10, p. 107.

V<sup>2</sup> 203, 34. Fr. 110,

εἰ γὰρ κέν σφ' ἀδινῆσιν ὑπὸ πραπίδεσσιν ἐρείσας  
εὐμένεως καθαρῆσιν ἐποπτεύσης μελέτησιν,  
ταῦτά τέ σοι μάλα πάντα δι' αἰῶνος παρέσσονται,  
ἄλλα τε πόλλ' ἀπὸ τῶνδ' ἐκτῆσαι· αὐτὰ γὰρ αὔξει  
5 ταῦτ' εἰς ἦθος ἕκαστον, ὅπῃ φύσις ἐστὶν ἕκαστῳ.  
εἰ δὲ σύ γ' ἄλλοίων ἐπορέξῃ, οἷα κατ' ἄνδρας  
μυρία δειλὰ πέλονται ἅ τ' ἀμβλύνουσι μερίμνας,  
ἦ σ' ἄφαρ ἐκλείψουσι περιπλομένοιο χρόνοι  
σφῶν αὐτῶν ποθέοντα φίλην ἐπὶ γένναν ἰκέσθαι·  
10 πάντα γὰρ ἴσθι φρόνησιν ἔχειν καὶ νόματος αἴσαν.

The text of this fragment as given by Hippolytus is extremely corrupt; but I accept the text given by Diels everywhere except in verses 4 and 5. Here the MSS. read *αὔξει* and *ἔθος*: Diels retains the former and adopts Miller's suggestion of *ἦθος* for the latter. This text I think is clearly wrong, as the difficulties experienced by Diels in rendering the passage ought to convince any reader. But v. 8 sq. seem to me to show what we require; for they obviously contain the converse of the statement which the poet made in the sentence we are considering. I am convinced that Empedocles wrote *αὔξει*, not *αὔξει*; with regard to *ἔθος*, one may hesitate before deciding between the claims of *ἔθνος* and *ἦθος*. In favor of *ἔθνος* one may quote Hippocr. *Περὶ τόπων τῶν κατὰ ἄνθρωπον*, 1 (6, 278 L.), *τοῦτο δ' ὁποῖον ἂν τι πάθῃ,*

τὸ σμικρότατον ἐπαναφέρει πρὸς τὴν ὁμοειδήν ἕκαστον πρὸς τὴν ἐωυτοῦ, ἢν τε κακὸν ἢν τε ἀγαθὸν ἦ· καὶ διὰ ταῦτα καὶ ἀλγέει καὶ ἡδεται ὑπὸ ἔθνεος τοῦ σμικροτάτου τὸ σῶμα, ὅτι ἐν τῷ σμικροτάτῳ πάντ' ἐνὶ τὰ μέρεα, καὶ ταῦτα ἐπαναφέρουσιν ἐς τὰ σφῶν αὐτῶν ἕκαστα, καὶ ἐξαγγέλλουσι πάντα. Other passages which may be compared are the following. Hippocr. *Περὶ φύσιος ἀνθρώπου*, 3 (6, 38 L.), καὶ πάλιν γε ἀνάγκη ἀποχωρεῖν ἐς τὴν ἐωυτοῦ φύσιν ἕκαστον, τελευτῶντος τοῦ σώματος τοῦ ἀνθρώπου, τὸ τε ὑγρὸν πρὸς τὸ ὑγρὸν καὶ τὸ ξηρὸν πρὸς τὸ ξηρὸν καὶ τὸ θερμὸν πρὸς τὸ θερμὸν καὶ τὸ ψυχρὸν πρὸς τὸ ψυχρὸν. τοιαύτη δὲ καὶ τῶν ζώων ἐστὶν ἡ φύσις καὶ τῶν ἄλλων πάντων· γίνεται τε ὁμοίως πάντα καὶ τελευτᾷ ὁμοίως πάντα· ξυνίσταται τε γὰρ αὐτέων ἡ φύσις ἀπὸ τουτέων τῶν προειρημένων πάντων, καὶ τελευτᾷ κατὰ τὰ εἰρημένα ἐς τὸ αὐτὸ ὅθεν περ ξυνέστη ἕκαστον, ἐνταῦθα οὖν καὶ ἀπεχώρησεν. *Περὶ φύσιος παιδίου* 17 (7, 496 L.), ἡ δὲ σὰρξ αὐξομένη ὑπὸ τοῦ πνεύματος ἀρθροῦται, καὶ ἔρχεται ἐν αὐτῇ ἕκαστον τὸ ὅμοιον ὡς τὸ ὅμοιον, τὸ πυκνὸν ὡς τὸ πυκνόν, τὸ ἀραιὸν ὡς τὸ ἀραιόν, τὸ ὑγρὸν ὡς τὸ ὑγρὸν· καὶ ἕκαστον ἔρχεται ἐς χώραν ἰδίην κατὰ τὸ ξυγγενές, ἀφ' οὗ καὶ ἐγένετο. Plato, *Tim.* 63 E, ἡ πρὸς τὸ συγγενές ὁδός. *Ibid.* 90 A, πρὸς τὴν ἐν οὐρανῷ συγγένειαν. Herod. 4. 147, ἀποπλεύσεσθαι ἐς τοὺς συγγενέας. Plotin. *Ennead.* 4. 3. 24, εἰς τὸν προσήκοντα αὐτῷ τόπον. Hermias, *Irris.* 7 (V<sup>2</sup> 19, 14), εἰς δὲ τὴν αὐτοῦ φύσιν ἐπανιών ἀήρ. Menand. *Epitrep.* 105,

εἰς δὲ τὴν αὐτοῦ φύσιν  
ἄρας ἐλείθερόν τι τολμήσει ποεῖν.

Lucret. 2, 1112,

nam sua cuique locis ex omnibus omnia plagis  
corpora distribuuntur et ad sua saecula recedunt.

These examples sufficiently prove that one can draw no inference from *εἰς* which would serve to decide the respective claims of *ἦθος* and *ἔθνος*; besides, the epic use of *εἰς* with reference to persons as well as places (*Il.* 7, 312; 15, 402; *Od.* 14, 126 sq.), which would obtain in Empedocles, leaves the question open. The poet means to say that Pausanias, to whom he addresses his poem as Lucretius addressed his to Memmius, if he gives heed to the instruction of his master, will find that it will lead him into all truth, since each truth will seek its fellows, each after its own kind; but if he deserts the living truth, it will in turn desert him, each truth, as before, longing to join its kindred. There are two passages in which Lucretius has plainly derived inspiration and suggestion from these words of Empedocles.



- 1, 400 Multaque praeterea tibi possum commemorando  
argumenta fidem dictis corradere nostris.  
verum animo satis haec vestigia parva sagaci  
sunt per quae possis cognoscere cetera tute.  
namque canes ut montivagae persaepe ferarum  
405 naribus inveniunt intectas fronde quietes,  
cum semel institerunt vestigia certa viai,  
sic alid ex alio per te tute ipse videre  
talibus in rebus poteris caecasque latebras  
insinuare omnis et verum protrahere inde.
- 1, 1114 Haec sei pernosces parva perductus opella  
.  
.  
.  
namque alid ex alio clarescet nec tibi caeca  
nox iter eripiet quin ultima naturai  
pervideas: ita res accendent lumina rebus.

After 1, 1114, with Munro, I assume a lacuna; for it appears obvious that the sentence is incomplete. But in the absence of more certain indications I refrain from speculating as to what and how much may have perished in the breach. Yet *perductus*, which is clearly right and ought not to be changed to *perdoctus*, and *iter*, like the words of Empedocles, suggest guidance on the way of truth: it is possible that Lucretius may have taken a hint, as 2, 75 sq., from ancient relay torch races, in which one runner handed over his torch or ignited that of his team-mate, to illustrate the way in which a truth once known flashes light far along paths hitherto shrouded in night. In 1, 400 sq. Lucretius cleverly adapts a conception to his own uses. As he did not accept the doctrine of the ubiquity of intelligence in nature, which underlies the thought of Empedocles, he was obliged to introduce a simile in lieu of the bold personification of facts and truths which renders memorable the passage of his predecessor. We naturally ask whether there was anything in his model to suggest the particular simile which he chose. Now, it must be confessed that there is a possible point of contact, if Empedocles wrote *ἦθος* rather than *ἔθνος*; for in that case *ἦθος* would certainly not mean "character" or "heart," as has been supposed, but "haunts" or "lair," according to a usage familiar in Greek. In that event we should have to think of facts or truths as having, like mountain-ranging beasts, their lairs where they hide their young and to which they themselves return and guide the man who follows them. If Empedocles used the word *ἦθος*, one might see in v. 4, ἄλλα τε πόλλ' ἀπὸ τῶνδ'

ἐκθήσεται, a reference to τόκος, usury; for, as one may perceive by Aeschin. 8. 35, δανείσματα οὐκ ὀλίγα, ἀφ' ὧν ἐκεῖνος τόκους ἐλάμβανε, the phraseology suggests it. Ancient writers, however, were fully aware of the metaphor, which was still alive, and played on the word, as Ar. Thesmoph. 842 sq., Plato, Repub. 555 E, Arist. Pol. 1. 10. 1258<sup>b</sup> 5 sq.. This metaphor would well lead up to that of *ἦθος*, as the lair of wild beasts. From this too, it would be easy to explain the figure of Lucretius, who substitutes mountain-ranging hounds tracking the beasts to their lairs (*quietes*, 1, 405, and *caecas latebras*, 408). Indeed, it is possible that Empedocles may have used the simile of the hound in this very connection, fr. 101,

κέρματα θηρίων μελέων μυκτῆρσιν ἐρευνῶν  
<ὁσμᾶθ'> ὅσσ' ἀπέλειπε ποδῶν ἀπαλῇ περὶ ποίῃ.

But the context in which the fragment is quoted by our ancient authorities, as well as Lucret. 4, 680 sq., suggest rather that Empedocles was there illustrating his doctrine of universal *ἀπορροιαί*. I find it difficult, therefore, to decide between the claims of *ἔθνος* and *ἦθος*; but incline on the whole to favor the former because of v. 9,

ποθέοντα φίλην ἐπὶ γένναν ἰκέσθαι.

I may add that Mr. Cornford, *From Religion to Philosophy*, p. 64, makes an interesting suggestion in regard to Emped. fr. 17, 28,

τιμῆς δ' ἄλλης ἄλλο μέδει, παρὰ δ' ἦθος ἐκάστω,

where he renders παρὰ . . . ἐκάστω, 'each has its wonted range.' See *ibid.*, p. 34.

Now that the general sense of Emped. fr. 110 is clear, there can be no doubt about the meaning of v. 5, ὅπῃ φύσις ἐστὶν ἐκάστω. It is *prout cuique natura est*, "each after its kind."

### c. 32. Philolaus.

V<sup>2</sup> 239, 31. Fr. 1, ἀ φύσις δ' ἐν τῷ κόσμῳ.

In V<sup>3</sup> Diels adopts certain suggestions made in my *Notes on Philolaus*, *Amer. Journ. of Philol.*, 28, p. 79, to which he refers, but rightly retains δ' ἐν τῷ κόσμῳ instead of δὲ τῷ κόσμῳ, which I formerly proposed; but in sense τῷ κόσμῳ was more nearly right than his rendering "bei der Weltordnung." In the notes he now cites parallels, which I furnished, for φύσις ἐν τῷ κόσμῳ. They sufficiently explain the



phrase and fix its meaning. I will now add another, Plotin. Ennead. 3. 8. 1, παίζοντες δὴ τὴν πρώτην πρὶν ἐπιχειρεῖν σπουδάζειν εἰ λέγομεν πάντα θεωρίας ἐφίεσθαι καὶ εἰς τέλος τοῦτο βλέπειν, οὐ μόνον ἔλλογα ἀλλὰ καὶ ἄλλογα ζῶα καὶ τὴν ἐν τοῖς φυτοῖς φύσιν καὶ τὴν ταῦτα γεννῶσαν γῆν κτλ. Thus ἡ ἐν τῷ κόσμῳ φύσις = ἡ τοῦ κόσμου φύσις. In Plotinus there is probably a suggestion of the common, universal φύσις as manifesting itself in plant-life; but all these passages alike prove that the phrase does not mean "bei der Weltordnung."

V<sup>2</sup> 240, 5. Fr. 2, δηλοῖ δὲ καὶ τὰ ἐν τοῖς ἔργοις.

Since Diels has now (V<sup>3</sup>) adopted my interpretation of these words, I might allow the matter to rest there; but the observation that this and similar phrases have been unduly pressed in other contexts leads me to illustrate it further. Nestle, in Philol., 67, 544, writing as it seems in ignorance both of Newbold's article and of mine, arrived at substantially the same conclusion with myself. It would carry us too far afield to consider in detail the passages which I have studied; hence I will give a list of those only which serve to illustrate Greek usage. It will be seen that ἐν τοῖς ἔργοις and ἐπὶ τῶν ἔργων are generally used when appeal is made to facts of common observation or knowledge, as opposed to theory, argument, or unsupported statement. As a matter of fact, these references are usually so general that they amount to nothing but the bald assertion that observation or knowledge confirms or contradicts the proposition in question. In very few cases which I have noted does the context suffice to enable one to specify the particular facts to which the writer affects to appeal: many passages are open to different interpretations and competent scholars find it difficult to agree about them. They are therefore especially valuable for our purposes. See Plato, Protag. 352 A, Soph. 234 E, Gorg. 461 D, Repub. 396 A, 599 B, Phaedo 110 A, Tim. 19 E, Legg. 679 D, Axiochus 369 A; Xenoph. Hiero 9. 3; Bonitz, *Index Arist.* 286<sup>a</sup> 27 sq., 40 sq.; Bywater, on Arist. Poet. 1453<sup>a</sup> 17. Cp. Arist. De Gen. Animal. 3. 11. 762<sup>a</sup> 15, οὐθέν γὰρ ἐκ παντὸς γίνεται, καθάπερ οὐδ' ἐν τοῖς ὑπὸ τῆς τέχνης δημιουργουμένοις. Meteor. 4. 3. 381<sup>a</sup> 10, καὶ οὐδὲν διαφέρει ἐν ὀργάνοις τεχνικοῖς ἢ φυσικοῖς, εἴαν γίγνηται· διὰ τὴν αὐτὴν γὰρ αἰτίαν πάντα ἔσται. Such general references to the similarity of products of art and of nature abound in certain works of the Corpus Hippocrateum. See also Hippocr. Περὶ φυσέων, 5 (where, after stating his theory, the writer says), περὶ μὲν οὖν ὅλου τοῦ πρήγματος ἀρκεῖ μοι ταῦτα· μετὰ δὲ ταῦτα πρὸς αὐτὰ τὰ ἔργα τῷ αὐτῷ λόγῳ πορευθεὶς ἐπιδείξω

τὰ νοσήματα τούτου ἔκγονα πάντα ἔόντα. In this instance the particular "facts" to which he appeals are mentioned. It is interesting to hear his conclusion, c. 15, ὑπεσχόμεν δὲ τῶν νοῦσων τὸ αἴτιον φράσειν· ἐπέδειξα δὲ τὸ πνεῦμα καὶ ἐν τοῖς ὅλοις πρήγμασι δυναστέον καὶ ἐν τοῖς σώμασι τῶν ζώων· ἡγαγον δὲ τὸν λόγον ἐπὶ τὰ γνώριμα τῶν ἀρρωστημάτων, ἐν οἷς ἀληθὴς ἡ ὑπόσχεσις (v. l. ὑπόθεσις) ἐφάνη· εἰ γὰρ περὶ πάντων τῶν ἀρρωστημάτων λέγοιμι, μακρότερος μὲν ὁ λόγος ἂν γένοιτο, ἀτρεκέστερος δὲ οὐδαμῶς οὐδὲ πιστότερος.

V<sup>2</sup> 241, 12. Fr. 6, ἰσοταγῇ.

Diels has now adopted my emendation ἰσοταγῇ for MS. ἰσοταχῇ. When I proposed it, I ventured the suggestion relying on the analogy of ὁμοταγῆς, not knowing that ἰσοταγῆς itself was attested. I now observe, however, that Sophocles, *Greek Lexicon*, s. v. cites it from Nicom. 51.

#### c. 46. Anaxagoras.

V<sup>2</sup> 319, 19. Fr. 13, καὶ ἐπεὶ ἤρξατο ὁ νοῦς κινεῖν, ἀπὸ τοῦ κινουμένου παντὸς ἀπεκρίνετο, καὶ ὅσον ἐκίνησεν ὁ νοῦς, πᾶν τοῦτο διεκρίθη· κινουμένων δὲ καὶ διακρινομένων ἡ περιχώρησις πολλῶ μᾶλλον ἐποίει διακρίνεσθαι.

It seems to me clear that ὁ νοῦς is the subject of ἀπεκρίνετο in the second clause. "After the νοῦς gave the initial impulse to the motion of the world, it began to withdraw from all that was set in motion; and all that to which the movement initiated by the νοῦς extended, was segregated. As this motion and segregation continued, the revolution greatly increased the segregation." The νοῦς gives the first impulse only, then withdraws to its condition of isolation; the revolution, once started, of itself accelerates and its effects in the segregation of like to like in the πάντα ὁμοῦ increase. Cp. ἡ περιχώρησις αὐτή, fr. 12, V<sup>2</sup> 319, 4 sq.

#### c. 51. Diogenes of Apollonia.

V<sup>2</sup> 334, 2. Fr. 1, λόγου παντὸς ἀρχόμενον δοκεῖ μοι χρεῶν εἶναι τὴν ἀρχὴν ἀναμφισβήτητον παρέχεσθαι.

With this statement compare Hippocr. Περὶ σαρκῶν, 1 (S. 584 L.), Ἐγὼ τὰ μέχρι τοῦ λόγου τούτου κοινῇσι γνώμησι χρεῶμαι ἐτέρων τε τῶν ἔμπροσθεν, ἀτὰρ καὶ ἐμεωτοῦ· ἀναγκαίως γὰρ ἔχει κοινὴν ἀρχὴν ὑποθέσθαι



τῇσι γνώμῃσι βουλόμενον ξυνθῆναι τὸν λόγον τόνδε περὶ τῆς τέχνης τῆς ἱητρικῆς. Περὶ τέχνης, 4 (6. 6 L.), ἐστὶ μὲν οὖν μοι ἀρχὴ τοῦ λόγου, ἢ καὶ ὁμολογηθήσεται παρὰ πᾶσιν. Περὶ τόπων τῶν κατὰ ἄνθρωπον, 2 (6. 278 L.), φύσις τοῦ σώματος, ἀρχὴ τοῦ ἐν ἱητρικῇ λόγου. Ion of Chios, fr. 1 (V<sup>2</sup> 222, 1 sq.), ἀρχὴ δέ μοι τοῦ λόγου· πάντα τρία καὶ οὐδὲν πλέον ἢ ἔλασσον τούτων τῶν τριῶν· ἐνὸς ἐκάστου ἀρετὴ τρίας· σύνεσις καὶ κράτος καὶ τύχη.

#### c. 54. Leucippus.

V<sup>2</sup> 343, 1. τὸ μὲν πᾶν ἄπειρόν φησιν, ὡς προεῖρηται· τούτου δὲ τὸ μὲν πλήρες εἶναι, τὸ δὲ κενόν, <ᾗ> καὶ στοιχεῖά φησι, κόσμους τε ἐκ τούτων ἀπείρους εἶναι καὶ διαλύεσθαι εἰς ταῦτα.

For some time I have felt that there was some confusion and corruption in the text, and that the last sentence must refer to the rise of the worlds out of the ἄπειρον and their return into it at dissolution. The well-known difficulties of the text of Diogenes alone deterred me from proposing a change. Now Diels, apparently from the MSS., restores ἐκ τούτου for ἐκ τούτων. That is obviously the correct reading, whatever its source; but with it should of course go the complementary reading εἰς τοῦτο for εἰς ταῦτα. The preceding sentence, however, has likewise suffered. The ἄπειρον is clearly conceived as the Aristotelian ἀρχὴ καὶ στοιχεῖον by the interpolator or epitomator who supplied the clause <ᾗ> καὶ στοιχεῖά φησι; for to his mind the words τούτου τὸ μὲν πλήρες, τὸ δὲ κενόν do not suggest spatial regions of the extended ἄπειρον, but ontological γένη of the metaphysical ἀρχή. His addition was absurdly misplaced, as were many in the text of Diogenes; but once there, it corrupted the following sentence. See above, p. 691, on V<sup>2</sup> 17, 37.

V<sup>2</sup> 344, 14. Arist. De Gen. et Corr. 1. 8. 324<sup>b</sup> 35, ὁδῶ δὲ μάλιστα καὶ περὶ πάντων ἐνὶ λόγῳ διωρίκασι Λεύκιππος καὶ Δημόκριτος.

The meaning of the phrase ἐνὶ λόγῳ has here been strangely misconceived. Prantl renders it "in einer Begründung"; Zeller, 1<sup>b</sup> 847, n. 1, "aus den gleichen Principien"; Döring, *Gesch. der gr. Philos.*, I. 238, "die von einem Princip ausgehende Lösung"; Burnet, *Early Greek Philosophy*<sup>2</sup>, 385, "on the same theory." I have failed to find this passage noted in Kranz's *Wortindex*, but in a similar one (V<sup>2</sup> 83, 8, ἐνὶ δὲ λόγῳ πάντα κτλ.), omitting to quote πάντα, he gives the meaning of λόγος as "Vernunft" (V<sup>2</sup> II. 2, 357, 30)! Similarly

Burnet, in his note on Plato, *Phaedo* 65 D, gives a false emphasis and in effect a false interpretation, because he overlooks, what is obvious, that in the phrase καὶ τῶν ἄλλων ἐνὶ λόγῳ ἀπάντων, the phrase ἐνὶ λόγῳ is to be taken as emphasizing ἀπάντων; and Capps, on Menander, *Epitrep.* 197 sq.

καταμενῶ,  
αὐριον ὅτφ βούλεσθ' ἐπιτρέπειν ἐνὶ λόγῳ  
ἔτοιμος,

wrongly takes ἐνὶ λόγῳ with ἔτοιμος instead of ὅτφ βούλεσθ'. Curiosity, awakened by the false points made by scholars in connection with the Aristotelian passage we are considering, led me to make a collection of cases of ἐνὶ λόγῳ, which grew to considerable proportions. I will not print a list here, since such collections possess no value in my sight except as an examination of the context serves to determine the sense of the locution in question. Suffice it to say that in almost every instance the immediate context contained a comprehensive or universal expression, such as πᾶν, οὐδέν, μυρία, etc. But ἐνὶ λόγῳ does not stand alone, for there is a considerable number of phrases similarly used; of these I give a few which should serve to illustrate the construction. Aeschyl. *P.* V. 46, ὡς ἀπλῶ λόγῳ . . . οὐδέν; *ibid.* 505, βραχεῖ δὲ μύθῳ πάντα συλλήβδην μαθέ; *ibid.* 975, ἀπλῶ λόγῳ πάντας ἐχθαίρω θεούς; Herod. 2. 24, ὡς μὲν νυν ἐν ἐλαχίστῳ δηλώσαι, πᾶν εἴρηται; *ibid.* 225, ὡς δὲ ἐν πλεονὶ λόγῳ δηλώσαι, ὧδε ἔχει; *ibid.* 2. 31, μυρίας ὡς εἰπεῖν λόγῳ; *ibid.* 3. 6, ἐν κεράμιον οἰνηρόν ἀριθμῶ κεινὸν οὐκ ἔστι ὡς λόγῳ εἰπεῖν ιδέσθαι; *ibid.* 3. 82, ἐνὶ δὲ ἑπεί πάντα συλλαβόντα εἰπεῖν; Plato *Apol.* 22 B, ὡς ἔπος εἰπεῖν ὀλίγου αὐτῶν ἅπαντας; Xenoph. *Mem.* 4. 3. 7, ὡς γὰρ συνελόντι εἰπεῖν, οὐδέν κτλ.; *Amphis*, fr. 30, 7 Kock, ἅπαντες ἀνδροφόνοι γὰρ εἰσιν ἐνὶ λόγῳ. Adverbs like ἔμβαχυν are similarly employed. After reciting this list of passages I think we may be sure that in the passage we are considering Aristotle merely meant to say that the procedure of Leucippus and Democritus was not only exceedingly methodical (ὁδῶ μάλιστα), but also comprehensive (περὶ πάντων ἐνὶ λόγῳ). Possibly those who have been reading something more into Aristotle's words might receive some comfort from Hippocr. *Περὶ ἐπταμήνου*, 3 (7. 438 L.), χρῶνται δὲ πᾶσαι ἐνὶ λόγῳ περὶ τούτου· φασὶ γὰρ κτλ. But the context shows that ἐνὶ λόγῳ means "one formula of expression." Even if one should insist on taking Aristotle's words as a parallel to this, it would greatly affect the traditional interpretations of the passage.



V<sup>2</sup> 344, 21. Arist. De Gen. et Corr. 1. 8. 325<sup>a</sup> 25, ὁμολογήσας δὲ ταῦτα μὲν τοῖς φαινομένοις, τοῖς δὲ τὸ ἐν κατασκευάζουσιν ὥς οὐκ ἂν κίνησιν οὐσαν ἄνευ κενοῦ, τό τε κενὸν μὴ ὄν καὶ τοῦ ὄντος οἰθὲν μὴ ὄν φησιν εἶναι. τὸ γὰρ κυρίως ὄν παμπλήρες ὄν.

I cannot understand how scholars have been so long content to retain this text, which yields no sense and so clearly suggests the true reading. With it we must compare other passages in which the same matter is under consideration. Arist. Met. 1. 4. 985<sup>b</sup> 4 (V<sup>2</sup> 343, 44), Λεύκιππος δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος στοιχεῖα μὲν τὸ πλήρες καὶ τὸ κενὸν εἶναι φασί, λέγοντες τὸ μὲν ὄν τὸ δὲ μὴ ὄν, τούτων δὲ τὸ μὲν πλήρες καὶ στερεὸν τὸ ὄν, τὸ δὲ κενὸν καὶ μακρόν τὸ μὴ ὄν (διὰ καὶ οὐθὲν μᾶλλον τὸ ὄν τοῦ μὴ ὄντος εἶναι φασιν, ὅτε οὐδὲ τὸ κενὸν <ἐλαττον Diels> τοῦ σώματος), αἷτια δὲ τῶν ὄντων ταῦτα ὥς ὕλην. Whether Diels was right in proposing to insert ἐλαττον we shall have presently to inquire. Simpl. Phys. 28, 11 (V<sup>2</sup> 345, 5), ἐτι δὲ οὐδὲν μᾶλλον τὸ ὄν ἢ τὸ μὴ ὄν ὑπάρχειν, καὶ αἷτια ὁμοίως εἶναι τοῖς γινόμενοις ἄμφω. τὴν μὲν γὰρ τῶν ἀτόμων οὐσίαν ναστὴν καὶ πλήρη ὑποθέμενος ὄν ἔλεγεν εἶναι καὶ ἐν τῷ κενῷ φέρεσθαι, ὅπερ μὴ ὄν ἐκάλει καὶ οὐκ ἐλαττον τοῦ ὄντος εἶναι φησι. We are familiar with the pun which Democritus employed to enforce this point of doctrine, fr. 156 (V<sup>2</sup> 413, 11), μὴ μᾶλλον τὸ δὲν ἢ τὸ μηδὲν εἶναι. It seems to me obvious that in the passage under consideration μὴ ὄν is a corruption by itacism for μεῖον. Indeed, I am inclined to think that the pun τό τε κενὸν μὴ ὄν καὶ τοῦ ὄντος οὐθὲν μεῖον derives from the same fertile brain as μὴ μᾶλλον τὸ δὲν ἢ τὸ μηδὲν, and that we have thus found another fragment of Democritus partially converted into the Attic dialect. If this be conceded, it seems more probable that we should supply μεῖον than ἐλαττον (with Diels) in Met. 985<sup>b</sup> 9. Aristotle used the word, Eth. Nic. 5. 1. 1129<sup>b</sup> 8, δοκεῖ καὶ τὸ μεῖον κακὸν ἀγαθὸν πως εἶναι, where the true reading, corrupted in the MSS., had to be recovered from the commentaries and versions. Cp. Aeschyl. P. V. 508, ὡς ἐγὼ | εὐελπίς εἰμι τῶνδ' ἐκ δεσμῶν ἐτι | λυθέντα μηδὲν μεῖον ἰσχύσειν Διός; Xenoph. Ages. 6. 3, τρόπαια μὴν Ἀγεσιλάου οὐχ' ὅσα ἐστήσατο ἀλλ' ὅσα ἐστρατεύσατο δίκαιον νομίζειν. μεῖον μὲν γὰρ οὐδὲν ἐκράτει κτλ.; Herondas 3, 59, ἔξει γὰρ οὐδὲν μεῖον; ibid. 15, 2, ὅς δ' ἔχει μεῖον | τούτου τι.

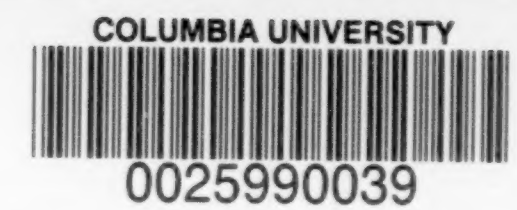
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